

United States  
Environmental Protection  
Agency

Solid Waste  
and Emergency Response  
(5306W)

EPA530-R-99-001A  
June 1999  
[www.epa.gov/osw](http://www.epa.gov/osw)



# Guide for Industrial Waste Management Appendices



**Building  
Partnerships**

**Protecting**  
Ground Water  
Surface Water  
Air

# **Proposed Guide For Industrial Waste Management For Public Comment Appendices**

EPA530-R-99-001A

U.S. Environmental Protection Agency  
Office of Solid Waste and Emergency Response  
401 M Street, SW  
Washington, DC 20460

1999



Printed on paper containing at least 30% postconsumer recovered fiber.

# BUILDING PARTNERSHIPS

## APPENDICES

## Appendix I: State Solid Waste Contacts

### **ALABAMA**

#### **Department of Environmental Management (ADEM)**

Land Division  
P.O. Box 301463  
Montgomery, AL 36130-1463  
Phone: 334 271-7730  
Fax: 334 279-3050  
Web site: [www.adem.state.al.us](http://www.adem.state.al.us)

#### **Alaska Department of Environmental Conservation Solid Waste Management**

ADEC Division of Environmental Health  
410 Willoughby Avenue, Suite 105  
Juneau, AK 99801-1795  
Phone: 907 465-5162  
Fax: 907 465-5164  
Web site: [www.state.ak.us/local/akpages/  
env.conserv/dec\\_div.htm](http://www.state.ak.us/local/akpages/env.conserv/dec_div.htm)

#### **Arizona Department of Environmental Quality Waste Programs Division**

3033 North Central Avenue, # 3048  
Phoenix, AZ 85012  
Phone: 602 207-4865  
Fax: 602 207-2383  
Web site: [www.adeq.state.az.us/index.htm](http://www.adeq.state.az.us/index.htm)

#### **Arkansas Department of Pollution Control and Ecology Solid Waste Management Division**

P.O. Box 8913  
Little Rock, AR 72219  
Phone: 501 682-0600  
Fax: 501 682-0565  
Web site: [www.adeq.state.ar.us/solwaste/  
main.htm](http://www.adeq.state.ar.us/solwaste/main.htm)

#### **California Integrated Waste Management Board**

8800 Cal Center Drive  
Sacramento, CA 95826  
Phone: 916 255-2200 or 800 553-2962  
Fax: 916 255-2220  
Web site: [www.ciwmb.ca.gov](http://www.ciwmb.ca.gov)

#### **California Department of Conservation Recycling Market Development**

801 K Street, MS 18-55  
Sacramento, CA 95814  
Phone: 916 327-2760  
Fax: 916 324-1224  
Web site: [www.consrv.ca.gov](http://www.consrv.ca.gov)

#### **Colorado Department of Public Health and Environment**

HMWMD-B2  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530  
Phone: 303 692-3300  
Fax: 303 759-5355  
Web site: [www.state.co.us/gov\\_dir/  
cdphe\\_dir/hm/hmhom.html](http://www.state.co.us/gov_dir/cdphe_dir/hm/hmhom.html)

#### **Connecticut Department of Environmental Protection Waste Management Bureau Office of Recycling and Source Reduction**

79 Elm Street  
Hartford, CT 06106-5127  
Phone: 860 424-3021  
Fax: 860 424-4060  
Web site: [dep.state.ct.us](http://dep.state.ct.us)

## Appendix I: State Solid Waste Contacts (cont.)

**Delaware Department of Natural Resources  
and Environmental Control  
Division of Air and Waste Management**

89 Kings Highway  
P.O. Box 1401  
Dover, DE 19903

Phone: 302 739-6400  
Fax: 302 739-5060  
Web site: [www.dnrec.state.de.us](http://www.dnrec.state.de.us)

**Florida Department of Environmental  
Protection  
Division of Waste Management**

2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Phone: 850 488-0300  
Fax: 850 921-8061  
Web site: [www2.dep.state.fl.us/waste/programs.htm](http://www2.dep.state.fl.us/waste/programs.htm)

**Georgia Department of Natural Resources**

7 Martin Luther King Jr. Drive, Suite 450  
Atlanta, GA 30334

Phone: 404 651-5120  
Fax: 404 651-5130  
Web site: [www.dnr.state.ga.us/dnr](http://www.dnr.state.ga.us/dnr)

**Hawaii Department of Health  
Office of Solid Waste Management**

919 Ala Moana Boulevard  
Honolulu, HI 96814

Phone: 808 586-4240  
Fax: 808 586-7509  
Web site: [www.hawaii.gov/health/ei/emsw/eiems00.htm](http://www.hawaii.gov/health/ei/emsw/eiems00.htm)

**Idaho Division of Environmental Quality**

1410 North Hilton  
Boise, ID 83706

Phone: 208 373-0502  
Fax: 208 373-0169  
Web site: [www2.state.id.us/deq](http://www2.state.id.us/deq)

**Illinois Environmental Protection Agency**

1021 North Grand Avenue East  
Springfield, IL 62702

Phone: 217 782-3397  
Web site: [www.epa.state.il.us](http://www.epa.state.il.us)

**Illinois Recycling Association**

P.O. Box 3717  
Oak Park, IL 60303-3717

Phone: 708 358-0050  
Fax: 708 358-0051

**Indiana Department of Environmental  
Management  
Office of Solid & Hazardous Waste  
Management**

P.O. Box 6015  
Indianapolis, IN 46206-6015

Phone: 317 233-3656 or 800 451-6027  
(in Indiana)  
Fax: 317 232-3403  
Web site: [www.ai.org/idem/oshwm/index.html](http://www.ai.org/idem/oshwm/index.html)

**Iowa Department of Natural Resources  
Environmental Protection Division**

Wallace State Office Building  
900 East Grand Avenue  
Des Moines, IA 50319-0034

Phone: 515 281-6284  
Web site: [www.state.ia.us/government/dnr/organiza/epd/index.htm](http://www.state.ia.us/government/dnr/organiza/epd/index.htm)

## Appendix I: State Solid Waste Contacts (cont.)

### **Kansas Department of Health and Environment**

Forbes Field, Building 740  
Topeka, KS 66620  
Phone: 785 296-1600  
Fax: 785 296-1592  
Web site: [www.state.ks.us/kdhe/waste](http://www.state.ks.us/kdhe/waste)

### **Kentucky Department for Environmental Protection**

Division of Waste Management  
14 Reilly Road  
Frankfort, KY 40601  
Phone: 502 564-6716  
Fax: 502 564-4049  
Web site: [www.state.ky.us/agencies/nrepc/waste/dwmhome.htm](http://www.state.ky.us/agencies/nrepc/waste/dwmhome.htm)

### **Louisiana Department of Environmental Quality Office of Waste Services**

P.O. Box 82178  
Baton Rouge, LA. 70884-2178  
Phone: 225 765-0355  
Fax: 225 765-0617  
Web site: [www.deq.state.la.us/welcome.htm](http://www.deq.state.la.us/welcome.htm)

### **Maine Department of Environmental Protection**

17 State House Station  
Augusta, ME 04333-0017  
Phone: 207 287-7688 or 800 452-1942  
Web site: [www.state.me.us/dep/mdephome.htm](http://www.state.me.us/dep/mdephome.htm)

### **Maryland Department of the Environment**

2500 Broening Highway  
Baltimore, MD 21224  
Phone: 410 631-3315 or 800 633-6100  
Fax: 410 631-3842  
Web site: [www.mde.state.md.us](http://www.mde.state.md.us)

### **Massachusetts Department of Environmental Protection Division of Solid Waste Management**

1 Winter Street, Fourth Floor  
Boston, MA 02108  
Phone: 617 338-2255 or 800 462-0444  
(in Massachusetts)  
Web site: [www.state.ma.us/dep](http://www.state.ma.us/dep)

### **Michigan Department of Environmental Quality**

Waste Management Division  
John Hannah Building, First Floor  
608 West Allegan Street  
P.O. Box 30241  
Lansing, MI 48933  
Phone: 517 373-2730  
Fax: 517 373-4797  
Web site: [www.deq.state.mi.us/wmd](http://www.deq.state.mi.us/wmd)

### **Minnesota Office of Environmental Assistance**

520 Lafayette Road North, Second Floor  
St. Paul, MN 55155-4100  
Phone: 651 296-3417 or 800 657-3843  
Fax: 651 215-0246  
Web site: [www.moea.state.mn.us](http://www.moea.state.mn.us)

### **Minnesota Pollution Control Agency**

520 Lafayette Road North  
St. Paul, MN 55155-4194  
Phone: 612 296-6300 or 800 657-3864  
Fax: 612 296-8717  
Web site: [www.pca.state.mn.us](http://www.pca.state.mn.us)

## Appendix I: State Solid Waste Contacts (cont.)

### Mississippi Department of Environmental Quality

P.O. Box 20305  
Jackson, MS 39289-1305  
Phone: 601 961-5171  
Fax: 601 961-5349  
Web site: [www.deq.state.ms.us/  
domino/deqweb.nsf](http://www.deq.state.ms.us/domino/deqweb.nsf)

### Missouri Department of Natural Resources Division of Environmental Quality Solid Waste Management Program

P. O. Box 176  
Jefferson City, MO 65102  
Phone: 573 751-5401  
Web site: [www.dnr.state.mo.us/deq/  
swmp/homeswmp.htm](http://www.dnr.state.mo.us/deq/swmp/homeswmp.htm)

### Montana Department of Environmental Quality Solid Waste Program

P.O. Box 200901  
Helena, MT 59620-0901  
Phone: 406 444-5307  
Fax: 406 444-6836  
Web site: [www.deq.mt.gov](http://www.deq.mt.gov)

### Nebraska Department of Environmental Quality

1200 N Street, Suite 400  
P.O. Box 98922  
Lincoln, NE 68509-8922  
Phone: 402 471-2186  
Fax: 402 471-2909  
Web site: [www.deq.state.ne.us](http://www.deq.state.ne.us)

### Nevada Division of Environmental Protection

Solid Waste Branch  
333 West Nye Lane  
Carson City, NV 89706-0851  
Phone: 702 687-4670  
Fax: 702 687-6396

### New Hampshire Department of Environmental Services

6 Hazen Drive  
Concord, NH 03302-0095  
Phone: 603 271-2900  
Fax: 603 271-2456  
Web site: [www.state.nh.us/des](http://www.state.nh.us/des)

### New Jersey Department of Environmental Protection Division of Solid Waste Management

401 East State Street, 7th Floor,  
East Wing  
P.O. Box 402  
Trenton, NJ 08625-0402  
Phone: 609 292-2885  
Fax: 609 292-7695  
Web site: [www.state.nj.us/dep](http://www.state.nj.us/dep)

### New Mexico Environmental Department

Harold S. Runnels Building  
1190 St. Francis Drive  
Santa Fe, NM 87505-4182  
Phone: 505 827-2855 or 800 879-3421  
Web site: [www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



## Appendix I: Technical Assistance Organizations (cont.)

**New York Department of Environmental  
Conservation  
Division of Solid and Hazardous Materials**

50 Wolf Road  
Albany, NY 12233-7253  
Phone: 518 457-6934  
Fax: 518 457-1283  
Web site: [www.dec.state.ny.us/website/  
pollution/index.html](http://www.dec.state.ny.us/website/pollution/index.html)

**North Carolina Department of  
Environmental Health and Natural  
Resources**

Solid Waste Section  
401 Oberlin Road, Suite 150  
Raleigh, NC 27605  
Phone: 919 733-0692  
Web site: [wastenot.ehnr.state.nc.us/  
swhome/swhome.htm](http://wastenot.ehnr.state.nc.us/swhome/swhome.htm)

**North Dakota Department of Health  
Division of Waste Management  
Solid Waste Program**

P.O. Box 5520  
1200 Missouri Avenue, Room 302  
Bismarck, ND 58506-5520  
Phone: 701 328-5153  
Fax: 701 28-5200  
Web site: [www.ehs.health.state.nd.us/  
ndhd/environ/wm/swp/index.htm](http://www.ehs.health.state.nd.us/ndhd/environ/wm/swp/index.htm)

**State of Ohio Environmental Protection  
Agency  
Division of Solid and Infectious Waste  
Management's (DSIWM)**

1800 Watermark Drive  
P.O. Box 1049  
Columbus, OH 43216-1049  
Phone: 614 644-2621  
Fax: 614 728-5315  
Web site: [www.epa.state.oh.us/dsiwm/  
dsiwmain.html](http://www.epa.state.oh.us/dsiwm/dsiwmain.html)

**Ohio Department of Natural Resources  
Division of Recycling & Litter Prevention**

Fountain Square, Building F-2  
Columbus, OH 43224  
Phone: 614 265-6333  
Fax: 614 262-9387  
Web site: [www.dnr.state.oh.us/odnr/  
recycling](http://www.dnr.state.oh.us/odnr/recycling)

**Oklahoma Department of Environmental  
Quality  
Waste Management, Recycling, and Waste  
Reduction**

707 North Robinson  
P.O. Box 1677  
Oklahoma City, OK 73101-1677  
Phone: 405 271-5338  
Fax: 405 271-8425  
Web site: [www.deq.state.ok.us](http://www.deq.state.ok.us)

**Oregon Department of Environmental  
Quality  
Solid Waste Policy and Program  
Development Section**

811 SW Sixth Avenue  
Portland, OR 97204  
Phone: 503 229-5913 or 880 452-4011  
Fax: 503 229-6954  
Web site: [www.deq.state.or.us/wmc/  
solwaste/rsr.htm](http://www.deq.state.or.us/wmc/solwaste/rsr.htm)

**Pennsylvania Department of Environmental  
Resources**

P.O. Box 8472  
Harrisburg, PA 17105-8472  
Phone: 717 787-7382  
Fax: 717 787-1904  
Web site: [www.dep.state.pa.us](http://www.dep.state.pa.us)



## Appendix I: Technical Assistance Organizations (cont.)

### Rhode Island Department of Environmental Management

235 Promenade Street  
Providence, RI 02908  
Phone: 401 277-3434  
Fax: 401 277-2591  
Web site: [www.state.ri.us/dem](http://www.state.ri.us/dem)

### South Carolina Department of Health and Environmental Control

Environmental Quality Control  
2600 Bull Street  
Columbia, SC 29201  
Phone: 803 734-5360  
Fax: 803 734-4901  
Web Site: [www.state.sc.us/dhec/eqchome.htm](http://www.state.sc.us/dhec/eqchome.htm)

### South Dakota Department of Environment and Natural Resources

523 East Capitol Avenue  
Pierre, SD 57501  
Phone: 605 773-3153  
Fax: 605 773-6035  
Web site: [www.state.sd.us/denr/denr.html](http://www.state.sd.us/denr/denr.html)

### Tennessee Department of Environment and Conservation Division of Solid Waste Assistance

L & C Tower, 14th Floor  
401 Church Street  
Nashville, TN 37243-0455  
Phone: 615 532-0070  
Web site: [www.state.tn.us/environment/swa](http://www.state.tn.us/environment/swa)

### Texas Natural Resource Conservation Commission

Office of Waste Management  
P.O. Box 13087  
Austin, TX 78711-3087  
Phone: 512 239-5200  
Fax: 512 239-5151  
Web site: [www.tnrcc.texas.gov/waste](http://www.tnrcc.texas.gov/waste)

### Utah Department of Environmental Quality

P.O. Box 144810-4810  
168 North 1950 West  
Salt Lake City, Utah 84114-4810  
Phone: 801 536-4400 or 800 458-0145  
Fax: 801 536-4401  
Web site: [www.eq.state.ut.us](http://www.eq.state.ut.us)

### Vermont Agency of Natural Resources Environmental Assistance

103 South Main Street  
Waterbury, VT 05671-0411  
Phone: 802 241-3477  
Fax: 802 241-3273  
Web site: [www.anr.state.vt.us/waste.htm](http://www.anr.state.vt.us/waste.htm)

### Virginia Department of Environmental Quality

629 East Main Street  
P.O. Box 10009  
Richmond, VA 23240-0009  
Phone: 804 698-4000 or 800 592-5482  
(in Virginia)  
Fax: 804 698-4453  
Web site: [www.deq.state.va.us/deq/homepage.html](http://www.deq.state.va.us/deq/homepage.html)

## Appendix I: Technical Assistance Organizations (cont.)

**Washington Department of Ecology  
Solid Waste Services Program**

P.O. Box 47600  
Olympia, WA 98504-7600

Phone: 360 407-7455

Fax: 360 407-6102

Web site: [www.wa.gov/ecology](http://www.wa.gov/ecology)

**West Virginia Bureau of Environment  
Solid Waste Management Board**

1615 Washington Street, East  
Charleston, WV 25311-2126

Phone: 304 558-0844

Fax: 304 558-0899

Web site: [www.state.wv.us/swmb](http://www.state.wv.us/swmb)

**Wisconsin Department of Natural  
Resources  
Bureau of Solid and Hazardous Waste  
Management**

P.O. Box 7921  
Madison, WI 53707-7921

Phone: 608 266-2111

Fax: 608 267-2768

Web site: [www.dnr.state.wi.us](http://www.dnr.state.wi.us)

**Wyoming Department of Environmental  
Quality  
Solid and Hazardous Waste Division**

250 Lincoln Street  
Lander, WY 82520

Phone: 307 332-6924

Fax: 307 332-7726

Web site: [deq.state.wy.us](http://deq.state.wy.us)

## Appendix II: Examples of Public Involvement Activities

### 1. CMA's Responsible Care®

To address citizens' concerns about the manufacture, transport, use, and disposal of chemical products, the Chemical Manufacturers Association (CMA) launched its Responsible Care® program in 1988. One of the guiding principles of the program is recognizing and responding to community concerns about chemicals and facility operations. CMA is committed to fostering an open dialogue with residents of the communities in which member companies are located.

To maintain their membership in CMA companies must participate in the Responsible Care® program. In addition, the program establishes a public advisory panel that helps CMA identify community concerns and suggests ways to resolve those concerns. The panel currently comprises 15 members, including representatives from both public and private sectors. The number of industry members is kept to a minimum to ensure that a balance of voices will be heard.

Member companies are required to address community concerns in two ways: (1) by developing and maintaining community outreach programs, and (2) by assuring that each facility has an emergency response program in place. For example, member companies must provide information about their waste minimization and emissions reduction activities, as well as provide convenient ways for citizens to become familiar with the facility, such as tours. Companies must also develop written emergency response plans that include information about how to communicate with members of the public and consider their needs after an emergency.

Responsible Care® is just one example of how public involvement principles can be incorporated into everyday business prac-

tices. The program also shows how involving the public makes good business sense. For more information about Responsible Care®, contact CMA at 703 741-5000.

### 2. AF&PA's Sustainable Forestry Initiative

Public concern about the future of America's forests coupled with the American Forest & Paper Association's (AF&PA's) belief that "sound environmental policy and sound business practice go hand in hand" fueled the establishment of the Sustainable Forestry Initiative (SFI). Established in 1995, the SFI outlines principles and objectives for environmental stewardship that all AF&PA members must comply with in order to retain membership. SFI encourages protecting wildlife habitat and water quality, reforestation harvested land, and conserving ecologically sensitive forest land. SFI recognizes that continuous public involvement is crucial to its ultimate goal of "ensuring that future generations of Americans will have the same abundant forests that we enjoy today."

The SFI stresses the importance of reaching out to the public through toll-free information lines, environmental education, private and public sector technical assistance programs, workshops, videos, and other means. To help keep the public informed of achievements in sustainable forestry, members report annually on their progress, and AF&PA distributes the resulting publication to interested parties. In addition, AF&PA runs two national forums a year, which bring together loggers, landowners, and senior industry representatives to review progress toward SFI objectives.

Many AF&PA state chapters have developed additional activities to inform the public about the SFI. For example, in New Hampshire, AF&PA published a brochure about sustainable forestry and used it to brief local sawmill officials and the media.

## Appendix II: Examples of Public Involvement Activities (cont.)

In Vermont, a 2-hour interactive television session allowed representatives from industry, public agencies, environmental organizations, the academic community, and private citizens to share their views on sustainable forestry. Furthermore, in West Virginia, AF&PA formed a Woodland Owner Education Committee to reach out to nonindustrial private landowners.

For more information about the SFI, contact AF&PA at 1 800 878-8878, or visit the web site [www.afandpa.org](http://www.afandpa.org).

# CHARACTERIZING WASTE APPENDICES

## Example Extraction Tests (Draft 9/30/97)

TEST METHOD	LEACHING FLUID	LIQUID:SOLID RATIO	MAXIMUM PARTICLE SIZE	NUMBER OF EXTRACTIONS	TIME OF EXTRACTIONS	COMMENTS
I. Static Tests A. Agitated Extraction Tests						
Toxicity Characteristic Leaching Procedure (1311)	0.1 N acetic acid solution, pH 2.9, for alkaline wastes 0.1 N sodium acetate buffer solution, pH 5.0, for non-alkaline wastes	20:1	9.5 mm	1	18 ±2 hours	Co-disposal scenario may not be appropriate; no allowance for structural integrity testing of monolithic samples
Extraction Procedure Toxicity Test (1310)	0.5 N acetic acid (pH-5.0)	16:1 during extraction 20:1 final dilution	9.5 mm	1	24 hours	High alkalinity samples may result in variable data
ASTM D3987-85 Shake Extraction of Solid Waste with Water	ASTM IV reagent water	20:1	As in environment (as received)	1	18 hours	Not validated for organics
California WET	0.2 M sodium citrate (pH-5.0)	10:1	2.0 mm	1	48 hours	Similar to EP, but sodium citrate makes test more aggressive
Ultrasonic Agitation Method for Accelerating Batch Leaching Test	Distilled water	4:1	Ground	1	30 minutes	New - little performance data

<sup>1</sup>Bisson, D.L.; Jackson D.R.; Williams K.R.; and Grube W.E.. J. Air Waste Manage. Assoc., 41: 1348-1354.

## Example Extraction Tests (continued)

TEST METHOD	LEACHING FLUID	LIQUID:SOLID RATIO	MAXIMUM PARTICLE SIZE	NUMBER OF EXTRACTIONS	TIME OF EXTRACTIONS	COMMENTS
Alternative TCLP for Construction, Demolition and Lead Paint Abatement Debris <sup>2</sup>	TCLP acetic acid solutions	20:1	<9.5	1	8 hours	Uses heat to decrease extraction time
Extraction Procedure for Oily Waste (1330)	Soxhlet with THF and toluene EP on remaining solids	100g:300mL 20:1	9.5 mm	3	24 hours (EP)	
Synthetic Precipitation Leaching Procedure (1312)	#1 Reagent water to pH 4.2 with nitric and sulfuric acids (60/40) #2 Reagent water to pH 5.0 with nitric and sulfuric acids (60/40)	20:1	9.5 mm	1	18±2 hours	ZHE option for organics
Equilibrium Leach Test	Distilled water	4:1	150 mm	1	7 days	Determines contaminants that have been insolubilized by solidification
<b>B. Non-Agitated Extraction Tests</b>						
Static Leach Test Method (material characteristic centre-1)	Can be site specific, 3 standard leachates: water, brine, silicate/bicarbonate	VOL/surface 10cm	40 mm <sup>2</sup> surface area	1	>7 days	Series of optional steps increasing complexity of analysis

<sup>2</sup>Olcrest, R.; A Representative Sampling and Alternative Analytical Toxic Characteristic Leachate Procedure Method for Construction, Demolition, and Lead Paint Abatement Debris Suspected of Containing Leachable Lead, Appl. Occup. Environ. Hyg. 11(1), January 1996.



## Example Extraction Tests (continued)

TEST METHOD	LEACHING FLUID	LIQUID:SOLID RATIO	MAXIMUM PARTICLE SIZE	NUMBER OF EXTRACTIONS	TIME OF EXTRACTIONS	COMMENTS
High Temperature Static Leach Tests Method (material characterization centre-2)	Same as MCC-1 (conducted at 100° C)	VOL/Surface 10 cm	40 mm <sup>2</sup> Surface Area	1	>7 Days	Series of optional steps increasing complexity of analysis
		<b>C. Sequential Chemical Extraction Tests</b>				
Sequential Extrac- tion Tests	0.04 m acetic acid	50:1	9.5 mm	15	24 hours per extraction	
		<b>D. Concentration Build-Up Test</b>				
Sequential Chemical Extraction	5 leaching solutions of increasing acidity	Varies from 16.1 to 40.1	150 mm	5	Varies 3 or 14 days	Examines partitioning of metals into different fractions or chemicals forms
Standard Leach Test, Procedure C (Wisconsin)	DI water SYN Landfill	10:1, 5:1 7.5:1	As in environment	3	3 or 14 days	Sample discarded after each leach, new sample added to existing leachate
		<b><u>II. Dynamic Tests (Leaching Fluid Renewed)</u></b> <b>A. Serial Batch (Particle)</b>				
Multiple Extraction Procedure (1320)	Same as EP TOX, then with synthetic acid rain (sulfuric acid, nitric acid in 60:40% mixture)	20:1	9.5 mm	9 (or more)	24 hours per extraction	
Monofill Waste Extraction Procedures	Distilled/ deionized water or other for specific site	10:1 per extraction	9.5 mm or monolith	4	18 hours per extraction	

## Example Extraction Tests (continued)

TEST METHOD	LEACHING FLUID	LIQUID:SOLID RATIO	MAXIMUM PARTICLE SIZE	NUMBER OF EXTRACTIONS	TIME OF EXTRACTIONS	COMMENTS
Graded Serial Batch (U.S. Army)	Distilled water	Increases from 2:1 to 96:1	N/A	>7	Until steady state	
Sequential Batch Ext. Of Waste with Water ASTM D-4793-93	Type IV reagent water	20:1	As in environment	10	18 hours	
Use of Chelating Agent to Determine the Metal Availability for Leaching Soils and Wastes <sup>3</sup>	Demineralized water with EDTA, sample to a final pH of 7±0.5	50 or 100	<300 µm	1	18, 24, or 48 hours	Experimental test based on Method 7341
		<b>B. Flow Around Tests</b>				
IAEA Dynamic Leach Test (International Atomic Energy Agency)	DI water/site water	N/A	One face prepared	>19	>6 months	
Leaching Tests on Solidified Products <sup>4</sup>	0.1N acetic acid	20:1 (Procedure A) 2:1 (6 hrs.) & 10:1 (18 hrs.) (Procedure B)	0.6 µm-70 µm	1	24 hours	S/S technologies most valid when applied to wastes contaminated by organic pollutants

<sup>3</sup>Garrabrants, A.C. and Koson, D.S.; Use of Chelating Agent to Determine the Metal Availability for Leaching from Soils and Wastes, unpublished.

<sup>4</sup>Leaching Tests on Solidified Products; Gavasci, R., Lombardi, F., Polettine, A., and Sirini, P.

## Example Extraction Tests (continued)

TEST METHOD	LEACHING FLUID	LIQUID:SOLID RATIO	MAXIMUM PARTICLE SIZE	NUMBER OF EXTRACTIONS	TIME OF EXTRACTIONS	COMMENTS
DLT	DI water	N/A	Surface washing	18	196 days	
<b>C. Flow Through Tests</b>						
ASTM D4874-95 Column Test	Type IV reagent water	One void volume		1	24 hours	
<b>III. Other Tests</b>						
MCC-5s Soxhlet Test (material characteristic center)	DI/site water	100:1	Out and washed	1	0.2 ml/min	
ASTM C1308-95 Accelerated Leach Test <sup>5</sup>						Only applicable if diffusion is dominant leaching mechanism
Generalized Acid Neutralization Capacity Test	Acetic acid	20:1	Able to pass through an ASTM No. 40 sieve	1	48 hours	Quantifies the alkalinity of binder and characterizes buffering chemistry
Acid Neutralization Capacity	HNO <sub>3</sub> , solutions of increasing strength	3:1	150 mm	1	48 hours per extraction	

<sup>5</sup>C1308-95 Accelerated Leach Test for Diffusive Releases from Solidified Waste and a Computer Program to Model Diffusive, Fractional Leaching from Cylindrical Wastes.

<sup>6</sup>Generalized Acid Neutralization capacity Test; Isenburg, J. and Moore, M.

INTREGRATING POLLUTION PREVENTION,  
RECYCLING, AND TREATMENT  
APPENDICES

## Appendix I: Technical Assistance Organizations<sup>1</sup>

### ALABAMA

#### Alabama Department of Environmental Management

Special Projects-P2 Unit  
P.O. Box 301463  
Montgomery, AL 36130-1463  
Phone: 334 213-4300  
Fax: 334 213-4399

### ALASKA

#### Alaska Department of Environmental Conservation

555 Cordova Street  
Anchorage, AK 99501-2617  
Phone: 907 269-7582  
Fax: 907 269-7652

### ARIZONA

#### Arizona Department of Environmental Quality

3033 North Central Avenue  
Phoenix, AZ 85012  
Phone: 602 207-4607  
Fax: 602 207-4236

### ARKANSAS

#### Arkansas Industrial Development Commission

One State Capitol Mall  
Little Rock, AR 72201  
Phone: 501 682-7325  
Fax: 501 682-7341

### CALIFORNIA

#### California Energy Commission

1519 Ninth Street  
Sacramento, CA 95814-5512  
Phone: 916 654-4554  
Fax: 916 663-7832

#### California Integrated Waste Management Board Waste Prevention and Market Development Division

8800 Cal Center Drive  
Mail Station 20  
Sacramento, CA 95826  
Phone: 916 255-2320  
Fax: 916 255-2573

#### California Manufacturing Technology Center

13430 Hawthorne Boulevard  
Hawthorne, CA 90250  
Phone: 310 355-3060  
Fax: 310 676-8630

#### California State Department of Toxic Substances Control Office of Pollution Prevention and Technology Development

P.O. Box 806  
Sacramento, CA 95812-0806  
Phone: 916 322-1815  
Fax: 916 327-4494

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<sup>1</sup>This information was excerpted from the Directory of State and Local Pollution Prevention Programs which is published by the National Pollution Prevention Roundtable, 2000 P Street, NW., Washington, DC, 20036 (Phone: 202 466-P2P2) and available online at [es.inel.gov/nppr\\_yps.html](http://es.inel.gov/nppr_yps.html).

## Appendix I: Technical Assistance Organizations (cont.)

**Pollution Prevention Center  
Institute for Research and Technical  
Assistance**

2800 Olympic Boulevard, Suite 101  
Santa Monica, CA 90404

Phone: 310 453-0450

Fax: 310 453-2660

**University of California - Los Angeles  
P2 Center**

3250 Public Policy Building  
P.O. Box 951656  
Los Angeles, CA 90095

Phone: 310 825-2654

Fax: 310 206-3906

### COLORADO

**Colorado Department of Public Health and  
Environment  
Pollution Prevention Unit**

4300 Cherry Creek Drive South  
Denver, CO 80222

Phone: 303 692-3003

Fax: 303 782-4969

**Mid-American Manufacturing Technology  
Center Colorado Regional Office**

Rockwell Hall  
Colorado State University  
Fort Collins, CO 80523

Phone: 303 224-3744

### CONNECTICUT

**Connecticut Department of Environmental  
Protection**

79 Elm Street  
Hartford, CT 06106-5122

Phone: 203 424-3297

Fax: 203 566-4924

**Connecticut State Technology Extension  
Program**

170 Middle Turnpike  
Storrs, CT 06269-2041

Phone: 203 486-2585

**Connecticut Technical Assistance Program  
(ConnTAP)**

50 Columbus Boulevard, Fourth Floor  
Hartford, CT 06106

Phone: 203 241-0777

Fax: 203 244-2017

### DELAWARE

**Delaware Department of Natural Resources  
and Environmental Conservation  
Pollution Prevention Program**

P.O. Box 1401  
89 Kings Highway  
Dover, DE 19903

Phone: 302 739-3822

Fax: 302 739-6242

**Delaware Manufacturing Alliance  
Delaware Technology Park**

One Innovation Way, Suite 301  
Newark, DE 19711

Phone: 302 452-2522

Fax: 302 452-1101

## Appendix I: Technical Assistance Organizations (cont.)

### FLORIDA

#### Florida Department of Environmental Resource Management

Pollution Prevention Program  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Phone: 904 488-0300  
Fax: 904 921-8061

### GEORGIA

#### Georgia Department of Natural Resources

205 Butler Street, SE., Suite 1066  
Atlanta, GA 30334

Phone: 404 657-8828  
Fax: 404 657-7379

#### Georgia Department of Natural Resources Pollution Prevention Assistance Division

Seven Martin Luther King, Jr. Drive,  
Suite 450  
Atlanta, GA 30334

Phone: 404 651-5120  
Fax: 404 651-5130

#### Georgia Manufacturing Extension Alliance Georgia Institute of Technology

223 O'Keefe Building  
Atlanta, GA 30332

Phone: 404 894-8989  
Fax: 404 853-9172

### University of Georgia

Dawson Hall, Room 307  
Athens, GA 30602

Phone: 706 542-4887  
Fax: 706 524-4890

### HAWAII

#### State of Hawaii Department of Health Environmental Management Division

919 Ala Moana Boulevard  
Honolulu, HI 96814

Phone: 808 586-4373  
Fax: 808 586-7509

### IDAHO

#### Idaho Division of Environmental Quality Prevention and Certification Bureau

1410 North Hilton  
Boise, ID 83706

Phone: 208 334-5860  
Fax: 208 334-0576

### ILLINOIS

#### Chicago Manufacturing Center HWRIC- Clean Manufacturing Program

Homan Square  
3333 West Arthington  
Chicago, IL 60624

Phone: 312 265-2180  
Fax: 312 265-8336

#### Illinois Department of Commerce and Community Affairs

620 East Adams Street, Third Floor  
Springfield, IL 62701

Phone: 217 785-6192  
Fax: 217 785-6328

#### Illinois Environmental Protection Agency Office of Pollution Prevention

2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276

Phone: 217 782-8700  
Fax: 217 782-9142



## Appendix I: Technical Assistance Organizations (cont.)

### **Illinois Hazardous Waste Research and Information Center**

One East Hazelwood Drive  
Champaign, IL 61820  
Phone: 217 333-8940  
Fax: 217 333-8944

### **INDIANA**

#### **Indiana Department of Environmental Management**

Office of P2 and Technical Assistance  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015  
Phone: 317 232-8172  
Fax: 317 233-5627

#### **Indiana P2 and Safe Materials Institute**

1291 Cumberland Avenue, Suite C1  
West Lafayette, IN 47906  
Phone: 317 494-6450  
Fax: 317 494-6422

### **IOWA**

#### **Iowa Department of Natural Resources**

Waste Reduction Assistance Program  
Wallace State Office Building  
Des Moines, IA 50319-0034  
Phone: 515 281-8499  
Fax: 515 281-8895

#### **Iowa Manufacturing Technology Center**

2006 South Ankeny Boulevard  
ATC Building, 3E  
Ankeny, IA 50021  
Phone: 515 965-7040  
Fax: 515 965-7050

### **Iowa Waste Reduction Center**

University of Northern Iowa  
Cedar Falls, IA 50614-0185  
Phone: 319 273-2079  
Fax: 319 273-2926

### **KANSAS**

#### **Kansas Department of Health and Environment**

Office of Pollution Prevention  
Building 283  
Forbes Field  
Topeka, KS 66620  
Phone: 913 296-6603  
Fax: 913 296-3266

#### **Kansas State University P2 Institute**

133 Ward Hall  
Manhattan, KS 66506  
Phone: 913 532-6501  
Fax: 913 532-6952

#### **Mid-American Manufacturing Technology Center**

10561 Barkley, Suite 602  
Overland Park, KS 66208  
Phone: 913 649-4333  
Fax: 913 649-4498

#### **University of Kansas**

Continuing Education Building  
Lawrence, KS 66045-2608  
Phone: 913 864-3968  
Fax: 913 864-5827

## Appendix I: Technical Assistance Organizations (cont.)

### KENTUCKY

#### Kentucky Business Environmental Assistance Program

227 Business and Economic Building  
Lexington, KY 40506-0034

Phone: 606 257-1131

Fax: 606 323-1907

#### Kentucky P2 Center

University of Louisville  
Academic Building, Room 420  
Louisville, KY 40292

Phone: 502 852-0965

Fax: 502 852-0964

#### Kentucky Technology Service

P.O. Box 1125  
Lexington, KY 40589

Phone: 606 252-7801

Fax: 606 252-7900

### LOUISIANA

#### Louisiana Department of Environmental Quality

P.O. Box 82263  
Baton Rouge, LA 70884

Phone: 504 765-0739

Fax: 504 765-0742

#### Louisiana Technical Assistance Program University of New Orleans

Engineering Building, Room 804  
New Orleans, LA 70148

Phone: 504 286-6644

Fax: 504 286-5586

### MAINE

#### Maine Department of Environmental Protection

State House Station, #17  
Augusta, ME 04333

Phone: 207 287-2811

Fax: 207 287-7826

#### Maine State Planning Office Waste Management and Recycling Program

38 State House Station  
Augusta, ME 04333

Phone: 207 287-3261

Fax: 207 287-6489

### MARYLAND

#### Maryland Department of the Environment

2500 Broening Highway  
Baltimore, MD 21224

Phone: 410 631-4119

Fax: 410 631-4477

#### Maryland Manufacturing Modernization Network

#### Maryland Department of Economic Development

Division of Business  
217 East Redwood Street  
Baltimore, MD 21202

Phone: 410 333-0206

Fax: 410 333-1836

#### Maryland Technology Extension Service

2104 Potomac Building-092  
University of Maryland  
College Park, MD 20742

Phone: 301 405-3883

## Appendix I: Technical Assistance Organizations (cont.)

### MASSACHUSETTS

#### Massachusetts Department of Environmental Protection

One Winter Street  
Boston, MA 02202  
Phone: 508 792-7962, Ext. 3775  
Fax: 508 792-7621

#### Massachusetts Executive Office of Environmental Affairs Office of Technical Assistance for Toxics Use Reduction

100 Cambridge Street  
Boston, MA 02202  
Phone: 617 727-3260  
Fax: 617 727-3827

#### Massachusetts Manufacturing Partnership Bay State Skills Corporation

101 Summer Street, Fourth Floor  
Boston, MA 02110  
Phone: 617 292-5100

#### Toxics Use Reduction Institute University of Massachusetts at Lowell

One University Avenue  
Lowell, MA 01854-2881  
Phone: 508 934-3275  
Fax: 508 934-3050

### MICHIGAN

#### Industrial Technology Institute Midwest Manufacturing Technology Center Energy and Environmental Program

P.O. Box 1485  
2901 Hubbard Road  
Ann Arbor, MI 48106  
Phone: 313 769-4234  
Fax: 313 769-4021

#### Michigan Department of Environmental Quality Environmental Services Division Pollution Prevention Section

P.O. Box 30457  
Lansing, MI 48909-7957  
Phone: 517 373-2731  
Fax: 517 335-4729

#### Michigan Technical University Center for Clean Industrial Treatment

1400 Townsend  
Houghton, MI 49931  
Phone: 906 487-3143  
Fax: 906 487-3292

#### University of Michigan

Dana Building  
430 East University  
Ann Arbor, MI 48109-1115  
Phone: 313 936-2637  
Fax: 313 936-2195

### MINNESOTA

#### Minnesota Office of Environmental Assistance

520 Lafayette Road, Second Floor  
Saint Paul, MN 55155  
Phone: 612 215-0296  
Fax: 612 297-8709

#### Minnesota Pollution Control Agency Pollution Prevention Program

520 Lafayette Road  
Saint Paul, MN 55155  
Phone: 612 296-8643  
Fax: 612 297-8676

## Appendix I: Technical Assistance Organizations (cont.)

### **Minnesota Technology, Inc.**

400 Mill Place  
111 Third Avenue, South  
Minneapolis, MN 55401  
Phone: 612 672-3446  
Fax: 612 339-5214

### **Minnesota Technology Inc. Upper Midwest Manufacturing Technology Center**

111 Third Avenue South, Suite 400  
Minneapolis, MN 55401  
Phone: 612 654-5201

### **MISSISSIPPI**

#### **Mississippi Department of Environmental Quality Waste Reduction and Waste Minimization Program**

P.O. Box 10385  
Jackson, MS 39289-0385  
Phone: 601 961-5171  
Fax: 601 961-5376

### **MISSOURI**

#### **Missouri Department of Natural Resources Technical Assistance Program Pollution Prevention Unit**

P.O. Box 176  
Jefferson City, MO 65102  
Phone: 314 526-6627  
Fax: 314 526-5808

### **MONTANA**

#### **Montana Pollution Prevention Program Montana State University Extension Service**

109 Taylor Hall  
Bozeman, MT 59717  
Phone: 406 994-3451  
Fax: 406 994-5417

### **Montana Small Business Assistance Programs Air Quality Program**

P.O. Box 200501  
Helena, MT 59620-0501  
Phone: 406 444-2960  
Fax: 406 433-1872

### **State of Montana Water Quality Division**

P.O. Box 200901  
Helena, MT 59620  
Phone: 406 444-7343  
Fax: 406 444-1374

### **NEBRASKA**

#### **Nebraska Department of Environmental Quality Office of Pollution Prevention**

P.O. Box 98922  
Lincoln, NE 68509-8922  
Phone: 402 471-2266  
Fax: 402 471-2909

### **Nebraska Small Business Development Center**

1313 Farnham Street, Suite 312  
Omaha, NE 68182-0248  
Phone: 402 595-2381  
Fax: 402 595-2385

### **University of Nebraska Biological Systems Engineering**

253 Chase Hall  
Lincoln, NE 68583-0726  
Phone: 402 472-8656  
Fax: 402 472-6337

## Appendix I: Technical Assistance Organizations (cont.)

### NEVADA

**Nevada Small Business Development Center**  
**Business Environmental Program, MS-032**  
**University of Nevada at Reno**

Reno, NV 89557-0100

Phone: 702 784-1717

Fax: 702 784-1375

### NEW HAMPSHIRE

**New Hampshire Department of Environmental Services**

P.O. Box 95

Concord, NH 00302-0095

Phone: 603 271-6398

Fax: 603 271-2867

### NEW JERSEY

**New Jersey Department of Environmental Protection**  
**Office of Pollution Prevention, CN423**

401 East State Street  
 Trenton, NJ 08625

Phone: 609 777-0518

Fax: 609 777-1330

**New Jersey Technical Assistance Program for Industrial Pollution Prevention (NJTAP)**  
**New Jersey Institute of Technology**

CEES Building University Heights  
 Newark, NJ 07102-1982

Phone: 201 596-5864

Fax: 201 596-6367

### NEW MEXICO

**New Mexico Economic Development**

1100 Saint Francis Drive  
 Santa Fe, NM 87503

Phone: 505 827-0563

Fax: 505 271-1317

**New Mexico Office of Energy, Minerals, and Natural Resources**

2040 South Pacheco Street  
 Santa Fe, NM 87505

Phone: 505 827-5993

Fax: 505 438-3855

**New Mexico Office of the Secretary Environment Department**

P.O. Box 26110

Santa Fe, NM 87502

Phone: 505 827-0677

Fax: 505 271-2846

**New Mexico Industry Network Corporations**

1601 Randolph Road, SE., Suite 210  
 Albuquerque, NM 87106

Phone: 505 272-7800

Fax: 505 272-7810

### NEW YORK

**Hudson Valley Manufacturing Outreach Center**

**Hudson Valley Technology Development Center**

300 Westgate Business Center, Suite 210  
 Fishkill, NY 12524

Phone: 914 896-6934

## Appendix I: Technical Assistance Organizations (cont.)

**Manufacturing Outreach Center of New York - Southern Tier  
UniPEG**

61 Court Street, Sixth Floor  
Binghamton, NY 13901

Phone: 607 774-0022  
Fax: 607 774-0026

**New York Manufacturing Extension Partnership**

385 Jordan Road  
Troy, NY 12180-8347

Phone: 518 283-1010  
Fax: 518 283- 1212

**New York State Environmental Facilities Corporation**

50 Wolf Road, Room 547  
Albany, NY 12205

Phone: 518 457-9135  
Fax: 518 485-8494

**New York City Manufacturing Outreach Center  
NY ITAC**

253 Broadway, Room 302  
New York, NY 10007

Phone: 212 240-6920  
Fax: 212 240-6879

**New York State Department of Environmental Conservation  
Pollution Prevention Unit**

50 Wolf Road  
Albany, NY 12233-8010

Phone: 518 457-7267  
Fax: 518 457-2570

**Western New York Tech Development Center**

1576 Sweet Home Road  
Amherst, NY 14228

Phone: 716 636-3626  
Fax: 716 636-3630

### NORTH CAROLINA

**North Carolina Department of Environment, Health, and Natural Resources  
Division of Pollution Prevention and Environmental Assistance**

P.O. Box 29569  
Raleigh, NC 27626-9569

Phone: 919 715-6500  
Fax: 919 715-6794

**University of North Carolina  
Small Business Environmental Affairs Office**

305 Kennedy Building  
Charlotte, NC

Phone: 704 547-3968  
Fax: 704 547-3216

### NORTH DAKOTA

**North Dakota Department of Health  
Environmental Health Section**

P.O. Box 5520  
Bismarck, ND 58502-5200

Phone: 701 328-5150  
Fax: 701 328-5200

**University of North Dakota  
Energy and Environmental Research Center**

P.O. Box 9018  
Grand Forks, ND 58202-9018

Phone: 701 777-5000  
Fax: 701-777-5181

## Appendix I: Technical Assistance Organizations (cont.)

### OHIO

#### **Great Lakes Manufacturing Technology Center (GLMTC)**

Prospect Park Building  
4600 Prospect Avenue  
Cleveland, OH 44103-4314

Phone: 216 432-5350  
Fax: 216 432-5314

#### **Ohio Environmental Protection Agency Office of Pollution Prevention**

1800 Watermark Drive  
P.O. Box 1049  
Columbus, OH 43216-1049

Phone: 614 644-2930  
Fax: 614 728-2329

#### **Plastics Technology Deployment Center**

Prospect Park Building  
4600 Prospect Avenue  
Cleveland, OH 44103

Phone: 216 432-5340  
Fax: 216 361 -2088

### OKLAHOMA

#### **Oklahoma Alliance for Manufacturing Excellence, Inc.**

252 South Main, Suite 500  
Tulsa, OK 74103

Phone: 918 592-0722  
Fax: 918 592-1417

#### **Oklahoma Department of Environmental Quality Pollution Prevention Program**

1000 NE. 10th Street  
Oklahoma City, OK 73117-1212

Phone: 405 271-1400  
Fax: 405 271-8425

### OREGON

#### **Oregon Department of Environmental Quality Toxics Use and Hazardous Waste Reduction Program**

811 SW Sixth Avenue  
Portland, OR 97204

Phone: 503 229-5946  
Fax: 503 229-5850

### PENNSYLVANIA

#### **Northeast Pennsylvania Manufacturing Extension Program Manufacturers Resource Center**

125 Goodman Drive  
Bethlehem, PA 18015

Phone: 610 758-5599

#### **Pennsylvania Department of Environmental Resources Source Reduction Program**

P.O. Box 8472  
Harrisburg, PA 17105-8472

Phone: 717 787-0540  
Fax: 717 787-8926

#### **Pennsylvania Technical Assistance Program Penn State University**

117 Tech Center  
University Park, PA 16802

Phone: 814 865-0427  
Fax: 814 865-5909

#### **Western Pennsylvania Manufacturing Extension Program**

4516 Henry Street  
Pittsburgh, PA 15213

Phone: 412 687-0200, Ext. 234



## Appendix I: Technical Assistance Organizations (cont.)

### **RHODE ISLAND**

**Rhode Island Department of  
Environmental Management  
Office of Strategic Planning and Policy**

235 Promenade Street  
Providence, RI 02908

Phone: 800 CLEAN RI or 401 222-3434  
Fax: 401 222-2591

**Rhode Island Economic Development  
Corporation**

Seven Jackson Walkway  
Providence, RI 02903

Phone: 401 277-2601  
Fax: 401 277-2591

### **SOUTH CAROLINA**

**South Carolina Department of Health and  
Environmental Control  
Center for Waste Minimization**

2600 Bull Street  
Columbia, SC 29201

Phone: 803 734-4761  
Fax: 803 734-9934

**University of South Carolina Institute of  
Public Affairs  
Hazardous Waste Management Research  
Fund**

937 Assembly Street  
Columbia, SC 29208

Phone: 803 777-8157  
Fax: 803 777-4575

### **SOUTH DAKOTA**

**South Dakota Department of Environment  
and Natural Resources**

Joe Foss Building  
523 East Capitol Avenue  
Pierre, SD 57501-3181

Phone: 605 773-4216  
Fax: 605 773-4068

### **TENNESSEE**

**Tennessee Center for Industrial Services**

226 Capitol Building, Suite 600  
Nashville, TN 37219-1804

Phone: 615 974-3018  
Fax: 615 974-1528

### **TEXAS**

**Dallas County Community College**

12800 Abrams Road  
Dallas, TX 75243-2199

Phone: 214 238-6905  
Fax: 214 238-6467

**Texas Natural Resource Conservation  
Commission  
Office of Pollution Prevention and  
Recycling (MC112)**

P.O. Box 13087  
Austin, TX 78711-3087

Phone: 512 239-3166  
Fax: 512 239-3165

**University of Texas at Arlington  
Environmental Institute for Technology  
Transfer**

P.O. Box 19050  
Arlington, TX 76019

Phone: 817 273-2300  
Fax: 817 794-5653

## Appendix I: Technical Assistance Organizations (cont.)

### UTAH

**Utah Department of Environmental Quality  
Office of Planning and Public Affairs**

168 North 1950 West  
P.O. Box 144810  
Salt Lake City, UT 84114-4810  
  
Phone: 801 536-4477  
Fax: 801 536-4401

**Weber State University  
Automotive Technology**

Ogden, Utah 84408-6318  
  
Phone: 801 626-6318  
Fax: 801 626-7917

### VERMONT

**Vermont Department of Environmental  
Conservation  
Pollution Prevention Division  
Environmental Assistance Division**

West Office Building  
103 South Main Street  
Waterbury, VT 05671-0404  
  
Phone: 802 241-3888  
Fax: 802 241-3296

### VIRGINIA

**A.I. Philpott Manufacturing Center**

231 East Church Street  
Martinsville, VA 24112  
  
Phone: 703 666-8890

**Virginia Department of Environmental  
Quality  
Office of Pollution Prevention**

P.O. Box 10009  
Richmond, VA 23240-0009  
  
Phone: 804 698-4545  
Fax: 804 698-4346

### WASHINGTON

**Washington State Department of Ecology  
Hazardous Waste and Toxics Reduction  
Program**

P.O. Box 47600  
Olympia, WA 98504-7600  
  
Phone: 360 407-6086  
Fax: 360 407-6989

### WEST VIRGINIA

**West Virginia Division of Environmental  
Protection  
Office of Water Resources  
Pollution Prevention Services**

2006 Robert C. Byrd Drive  
Beckley, WV 25801-8320  
  
Phone: 304 484-6269  
Fax: 304 558-2780

### WISCONSIN

**University of Wisconsin  
Extension SHWEC**

1304 South 70th Street  
West Allis, WI 53214  
  
Phone: 414 475-2845  
Fax: 414 475-3777

**Wisconsin Department of Natural  
Resources  
Hazardous Waste Minimization Program**

P.O. Box 7921  
Madison, WI 53707  
  
Phone: 608 267-3763  
Fax: 608 267-2768

## Appendix I: Technical Assistance Organizations (cont.)

### **Wisconsin Department of Natural Resources**

#### **Pollution Prevention Program**

P.O. Box 7921, TS/6  
101 South Webster  
Madison, WI 53707

Phone: 608 267-3125

Fax: 608 267-0496

### **WYOMING**

### **Wyoming Department of Environmental Quality**

#### **Solid and Hazardous Waste Division**

122 West 25th Street  
Cheyenne, WY 82002

Phone: 307 777-6105

Fax: 307 777-5973

### **GUAM**

### **Guam Environmental Protection Agency**

P.O. Box 22439  
Guam Main Facility  
Barrigada, Guam 96921

Phone: 671 472-8863

Fax: 671 477-9402

### **PUERTO RICO**

### **Puerto Rico Environmental Technology Assistance**

P.O. Box 40285  
San Juan, Puerto Rico 00940

Phone: 809 765-7517, Ext. 381

Fax: 809 765-6853

## Appendix II: Trade Associations

### GENERAL

#### American Society for Testing and Materials

100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959

Phone: 610 832-9500

Fax: 610 832-9555

Home page: [www.astm.org](http://www.astm.org)

#### Center for Waste Reduction Technologies

534 East 47th Street, 12th Floor  
New York, NY 10017

Phone: 212 705-7407

Fax: 212 838-8274

Home page: [www.aiche.org/docs/cwrt](http://www.aiche.org/docs/cwrt)

#### Mid-Continent Recycling Association

P.O. Box 5520  
Bismarck, ND 58502-5520

Phone: 701 221-5170

Fax: 701 221-5200

#### National Recycling Coalition

1727 King Street, Suite 105  
Alexandria, VA 22314-2720

Phone: 703 683-9025

Fax: 703 683-9026

#### Northeast Recycling Council

139 Main Street, Suite 401  
Brattleboro, VT 05301

Phone: 802 254-3636

Fax: 802 254-5870

Home page: [www.nerc.org](http://www.nerc.org)

### Pacific Northwest Economic Region

First Interstate Center, Suite 1080  
999 Third Avenue  
Seattle, WA 98104

Phone: 206 464-7298

Fax: 206 464-6859

Home page: [www.pnwer.org](http://www.pnwer.org)

### Pacific Northwest Pollution Prevention Research Center

1326 Fifth Avenue, Suite 650  
Seattle, WA 98101

Phone: 206 223-1151

Fax: 206 223-1165

Home page: [pprc.pnl.gov/pprc](http://pprc.pnl.gov/pprc)

### Southeast Recycling Market Council: Southeast Recyclers Market Exchange

P.O. Box 11468  
Montgomery, AL 36111

Phone: 205 277-7050

Fax: 205 277-7080

### Southwest Public Recycling Association

P.O. Box 27210  
Tucson, AZ 85726

Phone: 602 791-4069

Fax: 602 791-5417

### Western States Recycling Coalition Council of State Governments

121 Second Street  
San Francisco, CA 94105

Phone: 415 974-6422

Fax: 415 974-1747

## Appendix II: Trade Associations (cont.)

### ALUMINUM

#### Aluminum Association

900 19th Street, NW, Suite 300  
Washington, DC 20006  
Phone: 202 862-5100  
Fax: 202 862-5164  
Home page: <[www.aluminum.org](http://www.aluminum.org)>

### ASPHALT

#### Asphalt Recycling and Reclaiming Association

Three Church Circle, Suite 250  
Annapolis, MD 21401  
Phone: 410 267-0023  
Fax: 410 267-7546  
Home page: <[www.arra.org](http://www.arra.org)>

### CHEMICALS

#### Chemical Manufacturers Association

1300 Wilson Boulevard  
Arlington, VA 22209  
Phone: 703 741-5000  
Fax: 703 741-6242  
Home page: <[www.cmahq.com](http://www.cmahq.com)>

#### The National Association of Chemical Recyclers

1200 G Street, Suite 800  
Washington, DC 20005  
Phone: 202 434-8740  
Fax: 202 434-8741  
Home page: <[www.bismarck.com/nacr/nacr.html](http://www.bismarck.com/nacr/nacr.html)>

#### Synthetic Organic Chemical Manufacturers Association

1100 New York Avenue, Suite 1090  
Washington, DC 20005  
Phone: 202 414-4100  
Fax: 202 289-8584  
Home page: <[www.socma.com](http://www.socma.com)>

### COAL ASH

#### American Coal Ash Association

2760 Eisenhower Avenue, Suite 304  
Alexandria, VA 22314-4553  
Phone: 703 317-2400  
Fax: 703 317-2409  
Home page: <[www.acaa-usa.org](http://www.acaa-usa.org)>

### FERROUS METALS

#### Institute of Scrap Recycling Industries

1325 G Street, NW, Suite 1000  
Washington, DC 20005-3104  
Phone: 202 737-1770  
Fax: 202 626-0900  
Home page: <[www.isri.org](http://www.isri.org)>

#### American Iron and Steel Institute

1101 17th Street, NW, Suite 1300  
Washington, DC 20036  
Phone: 202 452-7112  
Fax: 202 463-6573  
Home page: <[www.steel.org](http://www.steel.org)>

#### American Foundrymen's Society, Inc.

505 State Street  
Des Plaines, IL 60016-8399  
Phone: 847 824-0181 or 800 537-4237  
Fax: 847 824-7848  
Home page: <[www.afsinc.org](http://www.afsinc.org)>

## Appendix II: Trade Associations (cont.)

### Container Recycling Institute

1400 16th St., NW., Suite 250  
Washington, DC 20036

Phone: 202 797-6839

Fax: 202 797-5411

Home page: [www.io.org/~boo4env/cpr/intro.htm](http://www.io.org/~boo4env/cpr/intro.htm)

### Recycling Institute

680 Andersen Drive  
Pittsburgh, PA 15220-2700

Phone: 412 922-2772 or 800 876-7274

Fax: 412 922-3213

Home page: [www.recycle-steel.org](http://www.recycle-steel.org)

### FOOD AND YARD WASTE

#### Compost Council

114 South Pitt Street  
Alexandria, VA 22314

Phone: 703 739-2401

Fax: 703 739-2407

Home page: [www.composter.com](http://www.composter.com)

#### Grocery Manufacturers of America

1010 Wisconsin Avenue, NW., Suite 900  
Washington, DC 20007

Phone: 202 337-9400

Fax: 202 337-4508

Home page: [www.gmabrands.com](http://www.gmabrands.com)

#### National Composting Program (US Conference of Mayors)

1620 I Street, NW.  
Washington, DC 20006

Phone: 202 293-7330

Fax: 202 429-0422

Home page: [www.usmayors.org](http://www.usmayors.org)

### National Food Processors Association

1401 New York Avenue, NW., Suite 400  
Washington, DC 20005

Phone: 202 639-5900

Fax: 202 639-5932

Home page: [www.nfpa-food.org](http://www.nfpa-food.org)

### OIL

#### American Petroleum Institute

1220 L Street, NW.  
Washington, DC 20005

Phone: 202 682-8000

Fax: 202 682-8031

Home page: [www.api.org](http://www.api.org)

#### National Oil Recyclers Association

12429 Cedar Road, Suite 26  
Cleveland, Ohio 44106-3172

Phone: 216-791-7316

Fax: 216-791-6047

Home page: [www.noraoil.com](http://www.noraoil.com)

#### United Association of Used Oil Services

318 Newman Road  
Sebring, FL 33870

Phone: 941 655-3880 or 800 877-4356

Fax: 941 655-3713

### PACKAGING

Corrugated Packaging Council  
2850 Golf Road  
Rolling Meadow, IL 60008

Phone: 847 364-9600 or 800 879-9777

Fax: 847 364-9639

Home page: [www.corrugated.com](http://www.corrugated.com)

## Appendix II: Trade Associations (cont.)

### **Institute of Packaging Professionals**

481 Carlisle Drive  
Herndon, VA 22070-4819  
Phone: 703 318-8970 or 800 432-4085  
Fax: 703 318-0310  
Home page: <[www.packinfo-world.org](http://www.packinfo-world.org)>

### **National Wooden Pallet and Container Association**

1800 North Kent Street, Suite 911  
Arlington, VA 22209-2109  
Phone: 703 527-7667  
Fax: 703 527-7717  
Home page: <[www.nwpca.com](http://www.nwpca.com)>

### **PAPER**

#### **American Forest and Paper Association**

1111 19th Street, NW., Suite 800  
Washington, DC 20036  
Phone: 202 463-2700 or 800 878-8878  
Fax: 202 463-2785  
Home page: <[www.afandpa.org](http://www.afandpa.org)>

#### **Institute of Paper Science and Technology**

500 10th Street, NW.  
Atlanta, GA 30318  
Phone: 404 894-5726  
Fax: 404 894-4778  
Home page: <[www.ipst.edu](http://www.ipst.edu)>

### **PLASTICS**

#### **American Plastics Council**

1801 K Street, NW., Suite 701L  
Washington, DC 20006  
Phone: 202 974-5400 or 800 243-5790  
Fax: 202 296-7119  
Home page: <[www.plasticsresource.com/apc](http://www.plasticsresource.com/apc)>

### **RUBBER**

#### **Rubber Manufacturers Association**

1400 K Street, NW., Suite 900  
Washington, DC 20005  
Phone: 202 682-4800  
Fax: 202 682-4854  
Home page: <[www.rma.org](http://www.rma.org)>

### **TEXTILES**

#### **American Textile Manufacturers Institute**

1130 Connecticut Avenue NW,  
Suite 1200  
Washington, DC 20036  
Phone: 202 862-0541  
Fax: 202 862-0570  
Home page: <[www.atmi.org](http://www.atmi.org)>

#### **Council for Textile Recycling Secondary Materials & Recycled Textiles, Inc.**

7910 Woodmont Avenue, Suite 1212  
Bethesda, MD 20814  
Phone: 301 656-1077  
Fax: 301 656-1079  
Home page: <[www.smartasn.org](http://www.smartasn.org)>

### **UTILITIES**

#### **Edison Electric Institute**

701 Pennsylvania Avenue, NW.  
Washington DC 20004-2696  
Phone: 202 508-5000  
Fax: 202 508-5186  
Home page: <[www.eei.org](http://www.eei.org)>

#### **Alabama Waste Materials Exchange**

411 East Irvine Avenue  
Florence, AL 35630  
Phone: 205 764-6830



## Appendix III: North American Materials Exchanges

### **Alaska Materials Exchange Alaska Department of Environmental Conservation**

555 Cordova Street  
Anchorage, AK 99501  
Phone: 907 269-7586 or 800 510-2332

### **Alberta Waste Materials Exchange Alberta Research Council**

P.O. Box 8330  
Edmonton, AB T6H 5X2  
Canada  
Phone: 403 465-3308  
Home page: <[www.awme.arc.ab.ca](http://www.awme.arc.ab.ca)>

### **Arizona Waste Exchange**

4725 East Sunrise Drive, Suite 215  
Tucson, AZ 85718  
Phone: 602 299-7716

### **Arizona Resource Exchange Program**

1331 East Fifth Street  
P.O. Box 210049  
Tucson, AZ 85721-0049  
Phone: 520 621-1266

### **Arkansas Economic Development Commission**

One Capitol Mall, Room 4B215  
Little Rock, AR 72201  
Phone: 501 682-7325  
Home page: <[www.adec.state.ar.us](http://www.adec.state.ar.us)>

### **Atlantic Coastal Action Program**

P.O. Box 6878, Station A  
Saint John, NB E20 4S3  
Canada  
Phone: 506 652-2227

### **Berkshires Materials Exchange Center for Ecological Technology**

112 Elm Street  
Pittsfield, MA 01201  
Phone: 413 445-4556

### **Business Materials Exchange**

136 West Grand Avenue, Suite 100  
Beloit, WI 53511  
Phone: 608 364-1131 or 800 364-3233  
Home page: <[www.wr.net/bmex/index.htm](http://www.wr.net/bmex/index.htm)>

### **California Materials Exchange California Integrated Waste Management Board**

8800 Cal Center Drive  
Sacramento, CA 95826  
Phone: 916 255-2369  
Home page: <[www.ciwmb.ca.gov/mrt/calmax/calmax.htm](http://www.ciwmb.ca.gov/mrt/calmax/calmax.htm)>

### **California Waste Exchange Department of Toxic Substances Control**

P.O. Box 806  
Sacramento, CA 95812-0806  
Phone: 916 322-4742  
Home page: <[www.calepa.cahwnet.gov/dtscdocs/cawastex.txt](http://www.calepa.cahwnet.gov/dtscdocs/cawastex.txt)>

## Appendix III: North American Materials Exchanges (cont.)

### Canadian Waste Materials Exchange ORTECH Corporation

2395 Speakman Drive  
Mississauga, ON L5K 1B3  
Canada

Phone: 905 822-4111, Ext. 265

### Chicago Board of Trade (CBOT) Recyclables Exchange

141 West Jackson Blvd.  
Chicago, IL 60604-2994

Phone: 312 435-7223

Home page: <[www.cbot.com/recyclables](http://www.cbot.com/recyclables)>

### Commercial Materials Exchange

1583 Banks Road  
Margate, FL 33063

Phone: 954 984-0701

### EnviroShare Materials Exchange Hall County Resource Recovery

Post Office Drawer 1435  
Gainesville, GA 30503

Phone: 770 535-8284

Home page: <[www.enviroshare.org](http://www.enviroshare.org)>

### Hawaii Materials Exchange

P.O. Box 121  
Wailuku, HI 96793

Phone: 808 667-7744 or 888 991-4000

Home page: <[maui.net/~mrghimex/himex1.html](http://maui.net/~mrghimex/himex1.html)>

### Hudson Valley Materials Exchange

207 Milton Turnpike  
Milton, NY 12547

Phone: 914 795-5507

### Illinois Industrial Materials Exchange Illinois Environmental Protection Agency (34)

2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276

Phone: 217 782-0450

Home page: <[www.epa.state.il.us/imes.html](http://www.epa.state.il.us/imes.html)>

### Indiana Materials Exchange

P.O. Box 2931  
125 West South Street  
Indianapolis, IN 46206-2931

Phone: 614 397-7675 or 800 968-8764

Home page: <[www.ai.org/idem/imex](http://www.ai.org/idem/imex)>

### Indiana Waste Exchange c/o Recycler's Trade Network, Inc.

P.O. Box 454  
Carmel, IN 46032

Phone: 317 574-6505

### Industrial Materials Exchange

First Interstate Center  
999 Third Avenue, Suite 700  
Seattle, WA 98104-4039

Phone: 206 296-4899/3968

Home page: <[www.metrokc.gov/hazwaste/imex](http://www.metrokc.gov/hazwaste/imex)>

### Industrial Materials Exchange, Inc.

1001 SW. Second Avenue, Suite 234  
Boca Raton, FL 33487

Phone: 800 541-7156

### Industrial Materials Exchange Service

P.O. Box 19276, #34  
Springfield, IL 62794-9276

Phone: 217 782-0450

## Appendix III: North American Materials Exchanges (cont.)

**Industrial Waste Recycling and Prevention Program**  
**Long Island City Business Development Corps**

29-10 Thomson Avenue, Ninth Floor  
 Long Island City, NY 11101

Phone: 718 786-5300, Ext. 24

**Iowa Waste Reduction Center**  
**By-Product and Waste Search Service**  
**University of Northern Iowa**

75 BRC  
 Cedar Falls, IA 50614-0185

Phone: 319 273-2079 or 800 422-3109  
 Home page: <[www.recycleiowa.org/tech/bawss.html](http://www.recycleiowa.org/tech/bawss.html)>

**Intercontinental Waste Exchange**

5200 Town Center Circle, Suite 303  
 Boca Raton, FL 33486

Phone: 800 541-0400

**Kansas Materials Exchange**

P.O. Box 152  
 Hutchinson, KS 67504-0152

Phone: 316 662-0551

**Kentucky Department of Environmental Protection, Division of Waste Management**

18 Riley Road  
 Frankfort, KY 40601

Phone: 502 564-6716

**Kentucky Industrial Materials Exchange**  
**Kentucky Pollution Prevention Center**

420 Academic Building  
 University of Louisville  
 Louisville, KY 40292

Phone: 502 852-0965 or 800 334-8635,  
 Ext. 0965

Home page: <[www.louisville.edu/org/kppc](http://www.louisville.edu/org/kppc)>

**La Bourse Québécoise des Matières Secondaires**

900 Place D'Youville  
 Bureau 210  
 Québec, PQ G1R 3P7  
 Canada

Phone: 418 528-0908 or 800 668-6686  
 Homepage: <[www.recycquebec.gouv.qc.ca/english/en\\_bulle\\_index.html](http://www.recycquebec.gouv.qc.ca/english/en_bulle_index.html)>

**Maine Materials Exchange**

93 Maquoit Drive  
 Freeport, ME 04032

Phone: 207 865-6621

**Manitoba Waste Exchange**  
**Resource Conservation Manitoba**

2-70 Alberta Street  
 Winnipeg, MB R3B 1E7  
 Canada

Phone: 204 942-4207  
 Home page: <[www.winnipeg.freenet.mb.ca/rcm/index.html](http://www.winnipeg.freenet.mb.ca/rcm/index.html)>

**Material Exchange**

1037 State Street  
 Bridgeport, CT 06605

Phone: 203 335-3452

## Appendix III: North American Materials Exchanges (cont.)

**Minnesota Materials Exchange  
Minnesota Office of Environmental  
Assistance**

520 Lafayette Road, Second Floor  
St. Paul, MN 55155-4100

Phone: 612 215-0216

**Minnesota Materials Exchange Alliance  
Minnesota Technical Assistance Program**

1313 Fifth Street, Suite 307  
Minneapolis, MN 55414

Phone: 612 627-4646 or 800 247-0015

Home page: <[www.umn.edu/mntap](http://www.umn.edu/mntap)>

**Missouri Environmental Improvement  
Authority**

325 Jefferson Street  
Jefferson City, MO 65101

Phone: 314 751-4919

**Mississippi Technical Assistance Program**

P.O. Box 9595  
Mississippi State, MS 39762

Phone: 601 325-8454

Home page: <[www.de.msstate.edu/misstap](http://www.de.msstate.edu/misstap)>

**Montana Industrial Waste Exchange  
Montana Chamber of Commerce**

P.O. Box 1730  
Helena, MT 59624

Phone: 406 442-2405

**Montana Materials Exchange  
MS Extension Service**

Taylor Hall  
Bozeman, MT 59717

Phone: 406 994-3451 or 888 678-6872

Home page: <[www.montana.edu/wwwated](http://www.montana.edu/wwwated)>

**National Association for the Exchange of  
Industrial Resources**

560 McClure Street  
Galesburg, IL 61401

Phone: 800 562-0955

Home page: <[www.misslink.net/naeir/naeir.htm](http://www.misslink.net/naeir/naeir.htm)>

**New Hampshire Materials Exchange**

122 North Main Street  
Concord, NH 03301

Phone: 603 224-5388 or 800 895-1930

Home page: <[www.enviro-source.com](http://www.enviro-source.com)>

**New Jersey Industrial Waste Information  
Exchange**

50 West State Street, Suite 1110  
Trenton, NJ 08608

Phone: 609 989-7888

**New Mexico Material Exchange**

Four Corners Recycling  
P.O. Box 904  
Farmington, NM 87499

**Northeast Industrial Waste Exchange, Inc.**

P.O. Box 2171  
Annapolis, MD 21404

Phone: 410 280-2080

**Northeast Minnesota Waste Exchange  
Western Lake Superior Sanitary District**

2626 Courtland Street  
Duluth, MN 55806

Phone: 218 722-3336

## Appendix III: North American Materials Exchanges (cont.)

**Ohio's Materials Exchange (OMEx)  
c/o Waste Alternatives**

P.O. Box 70  
Mount Vernon, OH 43050  
Phone: 888 718-6639  
Home page: <[www.epa.state.oh.us/opp/recyc/omex.html](http://www.epa.state.oh.us/opp/recyc/omex.html)>

**Oklahoma Waste Exchange Program  
Department of Environmental Quality  
Waste Management Division**

1000 NE. 10th Street  
Oklahoma City, OK 73117-1212  
Phone: 405 271-7354  
Home page: <[www.deq.state.ok.us](http://www.deq.state.ok.us)>

**Olmsted County Material Exchange  
Olmsted County Public Works**

2122 Campus Drive  
Rochester, MN 55904  
Phone: 507 285-8231

**Ontario Waste Exchange  
ORTECH Corporation**

2395 Speakman Drive  
Mississauga, ON L5K 1B3  
Canada  
Phone: 905 822-4111, Ext. 358

**Pacific Materials Exchange**

1522 North Washington, Suite 202  
Spokane, WA 99205  
Phone: 509 325-0551

**Puerto Rico Waste Exchange**

West 339 Calderon Street  
San Juan, PR 00926  
Phone: 809 748-0433

**Resource Exchange Network for  
Eliminating Waste**

TNRCC (MC-112)  
P.O. Box 13087  
Austin, TX 78711-3087  
Phone: 512 463-7773  
Home page: <[www.tnrcc.state.tx.us/admin/topdoc/pd/002](http://www.tnrcc.state.tx.us/admin/topdoc/pd/002)>

**Rocky Mountain Materials Exchange**

999 18th Street, Suite 2750  
Denver, CO 80202  
Phone: 303 297-0180, Ext. 103  
Home page: <[www.rmmex.com](http://www.rmmex.com)>

**Southeast Minnesota Materials Exchange**

171 West Third Street  
Winona, MN 55987  
Phone: 507 457-6464  
Home page: <[www.wwwwis.com/semrex](http://www.wwwwis.com/semrex)>

**Southeast Waste Exchange  
Urban Institute  
University of North Carolina, Charlotte**

9201 University City Boulevard  
Charlotte, NC 28223-0001  
Phone: 704 547-4289

**Southern Waste Information Exchange**

P.O. Box 960  
Tallahassee, FL 32302  
Phone: 904 386-6280 or  
800 441-SWIX (441-7949)  
Home page: <[www.enviroworld.com/SWIX](http://www.enviroworld.com/SWIX)>

## Appendix III: North American Materials Exchanges (cont.)

**Southwest Minnesota Materials Exchange  
Nobels County/Environmental Services**

P.O. Box 757  
Worthington, MN 56187  
Phone: 507 372-8227

**Tennessee Materials Exchange**

226 Capitol Boulevard Building,  
Suite 605  
Nashville, TN 37219  
Phone: 615 532-8881  
Home page: <[www.cis.utk.edu](http://www.cis.utk.edu)>

**Transcontinental Materials Exchange  
Department of Civil Engineering  
Louisiana State University**

Baton Rouge, LA 70803  
Phone: 504 388-4594

**TSDX Corporation**

1667 Cole Boulevard, Suite 400  
Golden, CO 80401  
Phone: 303 202-6620  
Home page: <[www.tsdx.com/surplus](http://www.tsdx.com/surplus)>

**Vermont Business Materials Exchange**

P.O. Box 935  
Brattleboro, VT 05302  
Phone: 802 257-7505

**Wastelink, Division of Tencon, Inc.**

140 Wooster Pike  
Milford, OH 45150  
Phone: 513 248-0012

**Wisconsin Department of Natural  
Resources Bureau of Solid and Hazardous  
Waste Management**

101 South Webster Street  
P.O. Box 7921  
Madison, WI 53707-7921  
Phone: 608 267-9523

## Appendix IV: Publications, Online Resources, and Software

### PUBLICATIONS AND ONLINE RESOURCES

The following are print and electronic sources of information about pollution prevention and waste reduction.

**American Forest and Paper Association (AF&PA).** AF&PA is the national trade association of the forest, paper, and wood products industries. It offers documents that may help you find buyers for wood and paper wastes. These documents include:

- **National Wood Recycling Directory.** This directory provides a nationwide listing of over 650 wood residue receiving centers. You can also search an on-line database of wood residue receiving centers at [www.afandpa.org/recycling/wood/search.htm](http://www.afandpa.org/recycling/wood/search.htm).
- **PaperMatcher: A Directory of Paper Recycling Mills.** This directory provides contact information for waste paper dealers, recycling centers, and mills consuming waste paper.

Contact AF&PA at 800 878-8878 (e-mail at: [INFO@afandpa.ccmil.com](mailto:INFO@afandpa.ccmil.com)). A publications order form is available online at [www.afandpa.org/publications/ic-gen.htm](http://www.afandpa.org/publications/ic-gen.htm).

**California Integrated Waste Management Board.** This web site contains general waste prevention background and business waste reduction program overviews, fact sheets, and information about market development for recycled materials and waste reduction training. Home page: [www.ciwmb.ca.gov/mrt/wpw/wpmain.htm](http://www.ciwmb.ca.gov/mrt/wpw/wpmain.htm).

**Center for Environmental Research Information (CERI).** CERI technical documents on waste reduction include guides and manuals, summaries of pollution prevention opportunity assessments, and waste reduction alternatives for specific industry sectors. Examples of resources available from CERI include:

- **Facility Pollution Prevention Guide.** U.S. EPA, EPA600-R-92-088.
- **Primer/Financial Analysis/P2 Projects.** U.S. EPA, EPA600-R-93-059.

Industry-specific guides are available for many industries, including:

- Fabricated metals;
- Pharmaceuticals;
- Metal finishing; and
- Painted circuit boards.

Contact CERI at 513-569-7562 (e-mail at: [ord.ceri@epamail.epa.gov](mailto:ord.ceri@epamail.epa.gov)) to request publications. Home page: [www.epa.gov/ttnrmrl/tmat.htm](http://www.epa.gov/ttnrmrl/tmat.htm).

**Enviro\$en\$e.** Enviro\$en\$e is a federal P2 network created by integrating technical information from EPA, over 16 Federal agencies, the States through the National Pollution Prevention Roundtable, and industry. The system seeks to facilitate the sharing of technology and experience among manufacturers, government, and researchers. It includes a directory of federal, state, and local pollution prevention programs. Enviro\$en\$e enables users to exchange information with other environmental professionals, access online databases such as EPA's Solvent Alternatives Umbrella and Pollution Prevention Case Studies, obtain EPA publications, and conduct key-word searches.



## Appendix IV: Publications, Online Resources, and Software (cont.)

Industry-specific information is included for the following industries:

- Commercial printing and graphic arts;
- Electronics assembly and manufacturing;
- Iron and steel foundries; and
- Metal finishing.

Enviro\$en\$e is accessible through either a modem at 703 908-2092 or the Internet at [es.inel.gov](http://es.inel.gov).

**National Pollution Prevention Roundtable.** The National Pollution Prevention Roundtable (NPPR) is the largest membership organization in the United States devoted solely to pollution prevention. The mission of the Roundtable is to provide a national forum for promoting the development, implementation, and evaluation of efforts to avoid, eliminate, or reduce pollution at the source. NPPR publishes The Pollution Prevention Yellow Pages, a listing of regional P2 organizations that work with state and local governments, state and local government programs, federal agencies and EPA P2 coordinators, and non-profit groups, private sector organizations, and non-profit consultants who work on P2. The Roundtable's web site provides an abridged online version of The Pollution Prevention Yellow Pages information and links to state P2 programs, P2 resources, and a publications list. Home page: [es.inel.gov/nppr](http://es.inel.gov/nppr).

**Pacific Northwest Pollution Prevention Research Center.** This Internet site offers a comprehensive database of pollution prevention research projects. Currently, the site includes fact sheets on more than 300 research projects. In addition, the site also includes analyses of successful pollution prevention approaches, which have been documented through demonstration projects. The site can help waste generators identify professionals with experience in areas of concern. Home page: [pprc.pnl.gov/pprc](http://pprc.pnl.gov/pprc).

**P2 GEMS.** This site, an Internet search tool operated by the Massachusetts Toxics Use Reduction Institute, can help facility planners, engineers and managers locate process and materials management information over the World Wide Web. It includes information on over 550 sites valuable for toxics use reduction planning and pollution prevention. Information is organized by categories including product/industry, chemical/waste, process, and management tools. Home page: [turi.uml.edu/p2gems](http://turi.uml.edu/p2gems).

**Pollution Prevention Information Clearinghouse (PPIC).** PPIC maintains a collection of documents related to waste reduction. The clearinghouse serves as a distribution center for nonregulatory EPA documents. Some of the resources available include:

- Pollution Prevention Directory. U.S. EPA, Office of Pollution Prevention and Toxics, EPA742-B-94-005, September 1994.
- Pollution Prevention Information Clearinghouse Information Sheet. February 1994.
- Enviro\$en\$e (brochure). U.S. EPA, February 1996.
- Setting up a Pollution Prevention Program. EPA742-F-93-004, September 1993.
- ISO 14000: International Environmental Management Standards (EPA Standards Network



## Appendix IV: Publications, Online Resources, and Software (cont.)

Fact Sheet). U.S. EPA, Office of Pollution Prevention and Toxics, EPA742-F-95-006, May 1995.

Contact PPIC at 202 260-1023 (e-mail: [ppic@epamail.epa.gov](mailto:ppic@epamail.epa.gov)) for a general information packet and a current list of materials available.

**Technical Assistance Resources for Pollution Prevention (TARP2).** This web site provides an extensive listing and links to Internet resources on pollution prevention topics. It includes descriptions of electronic resources for the federal government, state and local governments, research and information centers, international organizations, and business and industry links.

Home page: [www.epa.ohio.gov/opp/tarp/tarp.html](http://www.epa.ohio.gov/opp/tarp/tarp.html).

**US Department of Energy (DOE) Industrial Assessment Centers (IACs).** DOE's Office of Industrial Technologies sponsors free industrial assessments for small and medium-sized manufacturers. Teams of engineering students from the centers, located at 30 universities around the country, conduct energy audits or industrial assessments and provide recommendations to manufacturers to help them identify opportunities to improve productivity, reduce waste, and save energy. Recommendations from industrial assessments have averaged about \$55,000 in potential annual savings for each manufacturer. The IAC web site can help you locate the nearest IAC and learn more about the program.

Home page: [www.oit.doe.gov/Access/iac.html](http://www.oit.doe.gov/Access/iac.html).

**Western Region Pollution Prevention Network (P2 West).** This is a network of on-line tools and off-line organizations in EPA Region 9 (Arizona, California, Hawaii, Nevada, Guam, and American Samoa). It lists pollution prevention assistance providers, vendors, consultants, partnering opportunities, useful documents, background information, ISO 14000 and environmental management information, and links to other sites.

Home page: [www.westp2net.org](http://www.westp2net.org).

### Software

Governments and other organizations have developed software to help you assess your waste reduction options and implement solutions.

**EPA software.** Various EPA offices offer environmental software. For example, EPA Region 5 and Purdue University have developed the Software for Environmental Awareness (SEA) group of free programs, including PREVENT, a pollution prevention application. PREVENT provides an overview of P2 concepts and relevant environmental legislation and describes in detail P2 opportunities in the industry, agriculture, energy, government, and consumer sectors. It also features case studies and offers P2 information resources.

Home page: [www.epa.gov/grtlakes/seahome](http://www.epa.gov/grtlakes/seahome).

**Waste Reduction Advisory System (WRAS).** Developed by the Hazardous Waste Research and Information Center (HWRIC), WRAS is an electronic waste management tool designed to assist waste generators reduce and recycle industrial waste. The tool includes a waste reduction checklist and a bibliography. The software costs \$95. To order, contact HWRIC at 217 333-8940.

## CONSIDERING THE SITE APPENDICES

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## Appendix I: State Geological Surveys

For any changes to this information that may have occurred after publication of this document, consult the list kept by the University of Missouri-Rolla, on which this appendix is based, at <http://www.umr.edu/~library/geol/geoloff.html>.

### ALABAMA

Geological Survey of Alabama  
P.O. Box O  
420 Hackberry Lane  
Tuscaloosa, AL 35486-9780

Phone: 205 349-2852  
Fax: 205 349-2861  
E-mail: [gsa@ogb.gsa.tuscaloosa.al.us](mailto:gsa@ogb.gsa.tuscaloosa.al.us)  
Internet: <http://www.gsa.tuscaloosa.al.us>

### ALASKA

Alaska Division of Geological & Geophysical Surveys  
Suite 200  
794 University Avenue  
Fairbanks, AK 99709-3645

Phone: 907 451-5010  
Fax: 907 451-5050

### ARIZONA

Arizona Geological Survey  
Suite 100  
416 W. Congress St.  
Tuscon, AZ 85701

Phone: 520 770-3500  
Fax: 520 770-3505

### ARKANSAS

Arkansas Geological Commission  
Vardelle Parham Geology Center  
3815 West Roosevelt Rd.  
Little Rock, AR 72204

Phone: 501 296-1877  
Fax: 501 663-7360

### CALIFORNIA

California Division of Mines and Geology  
Department of Conservation  
801 K Street, MS 12-30  
Sacramento, CA 95814-3531

Phone: 916 445-1923  
Fax: 916 445-5718

### COLORADO

Colorado Geological Survey  
Department of Natural Resources  
1313 Sherman Street  
Room 715  
Denver, CO 80203

Phone: 303 866-2611  
Fax: 303 866-2461

### CONNECTICUT

Connecticut Geological & Natural History Survey  
79 Elm St., Store Level  
Hartford, CT 06106-5127

Phone: 860 424-3540  
Fax: 860 424-4058

## Appendix I: State Geological Surveys (cont.)

### DELAWARE

Delaware Geological Survey  
DGS Building  
University of Delaware  
Newark, DE 19716-7501

Phone: 302 831-2833  
Fax: 302 831-3579

### DISTRICT OF COLUMBIA

Geologist of Washington, D.C.  
Department of Biology and Environmental  
Science  
MB 44-04  
University of the District of Columbia  
4200 Connecticut Avenue, N.W.  
Washington, D.C. 20008-1154

Phone: 202 274-5886  
Fax: 202 274-5589

### FLORIDA

Florida Geological Survey  
903 W. Tennessee St.  
Tallahassee, FL 32304-7700

Phone: 904 488-4191  
Fax: 904 488-8086

### GEORGIA

Georgia Geological Survey  
Department of Natural Resources  
Room 400  
19 Martin Luther King Jr. Drive, SW.  
Atlanta, GA 30334

Phone: 404 656-3214  
Fax: 404 657-8379

### HAWAII

Hawaii Department of Land & Natural  
Resources  
Division of Water and Land Development  
Box 373  
Honolulu, HI 96809

Phone: 808 587-0230  
Fax: 808 587-0283

### IDAHO

Idaho Geological Survey  
Morrill Hall, Room 332  
University of Idaho  
Moscow, ID 83843

Phone: 208 885-7991  
Fax: 208 885-5826  
e-mail: [bennett@aspen.csr.uidaho.edu](mailto:bennett@aspen.csr.uidaho.edu)

### ILLINOIS

Illinois State Geological Survey  
Natural Resources Building  
615 E. Peabody Drive  
Champaign, IL 61820-6964

Phone: 217 333-4747  
Fax: 217 244-7004  
e-mail: [isgs@geoserv.isgs.uiuc.edu](mailto:isgs@geoserv.isgs.uiuc.edu)  
Internet: <http://www.isgs.uiuc.edu/isgshome.html>

### INDIANA

Indiana Geological Survey  
611 N. Walnut Grove  
Bloomington, IN 47405

Phone: 812 855-9350  
Fax: 812 855-2862  
Internet: <http://www.indiana.edu/~igs/index.html>

## Appendix I: State Geological Surveys (cont.)

### IOWA

Iowa Department of Natural Resources  
Geological Survey Bureau  
109 Trowbridge Hall  
Iowa City, IA 52242-1319  
  
Phone: 319 335-1575  
Fax: 319 335-2754  
e-mail: [dkoch@gsbth-po.igsb.uiowa.edu](mailto:dkoch@gsbth-po.igsb.uiowa.edu)  
Internet: <http://www.igsb.uiowa.edu>

### KANSAS

Kansas Geological Survey  
1930 Constant Avenue  
West Campus  
University of Kansas  
Lawrence, KS 66047  
  
Phone: 913 864-3965  
Fax: 913 864-5317  
Internet: <http://www.kgs.ukans.edu>

### KENTUCKY

Kentucky Geological Survey  
228 Mining & Mineral Resources Building  
University of Kentucky  
Lexington, KY 40506-0107  
  
Phone: 606 257-5500  
Fax: 606 257-1147

### LOUISIANA

Louisiana Geological Survey  
Box G  
Louisiana State University  
Baton Rouge, LA 70893  
  
Phone: 504 388-5320  
Fax: 504 388-5328

### MAINE

Maine Geological Survey  
Department of Conservation  
22 State House Station  
Augusta, ME 04333-0022  
  
Phone: 207 287-2801  
Fax: 207 287-2353

### MARYLAND

Maryland Geological Survey  
Maryland Department of Natural Resources  
2300 St. Paul Street  
Baltimore, MD 21218-5210  
  
Phone: 410 554-5503  
Fax: 410 554-5502  
e-mail: [ecleaves@mgs.dnr.md.gov](mailto:ecleaves@mgs.dnr.md.gov)  
Internet: <http://mgs.dnr.md.gov>

### MASSACHUSETTS

Massachusetts Office of Environmental  
Affairs  
100 Cambridge Street, 20th Floor  
Boston, MA 02202  
  
Phone: 617 727-5830, ext. 305  
Fax: 617 727-2754

### MICHIGAN

Michigan Geological Survey Division  
State Geologist  
P.O. Box 30256  
Lansing, MI 48909-7756  
  
Phone: 517 334-6923  
Fax: 517 334-6038

## Appendix I: State Geological Surveys (cont.)

### MINNESOTA

Minnesota Geological Survey  
University of Minnesota  
2642 University Avenue  
St. Paul, MN 55114-1057

Phone: 612 627-4780  
Fax: 612 627-4778  
e-mail: [mgs@gold.tc.umn.edu](mailto:mgs@gold.tc.umn.edu)  
Internet: <http://www.geo.umn.edu:80/mgs/>

### MISSISSIPPI

Mississippi Office of Geology  
P.O. Box 20307  
Jackson, MS 39289-1307

Phone: 601 961-5500  
Fax: 601 961-5521

### MISSOURI

Missouri Department of Natural Resources  
Division of Geology & Land Survey  
111 Fairgrounds Road  
Rolla, MO 65402

Phone: 314 368-2100  
Fax: 314 368-2111

### MONTANA

Montana Bureau of Mines & Geology  
Montana Tech of the University of Montana  
1300 W. Park Street  
Butte, MT 59701-8997

Phone: 406 496-4180  
Fax: 406 496-4451

### NEBRASKA

Nebraska Conservation & Survey Division  
University of Nebraska-Lincoln  
113 Nebraska Hall  
Lincoln, NE 68588-0517

Phone: 402 472-3471  
Fax: 402 472-2410  
e-mail: [pwigley@unlinfo.unl.edu](mailto:pwigley@unlinfo.unl.edu)

### NEVADA

Nevada Bureau of Mines & Geology  
University of Nevada, Stop 178  
Reno, NV 89557

Phone: 702 784-6691  
Fax: 702 784-1709

### NEW HAMPSHIRE

New Hampshire Geological Survey  
Department of Environmental Sciences  
Box 2008  
Concord, NH 03302-2008

Phone: 603 271-3406  
Fax: 603 271-7894

### NEW JERSEY

New Jersey Geological Survey  
29 Arctic Parkway, CN-427  
Trenton, NJ 08625-0427

Phone: 609 292-1185  
Fax: 609 633-1004  
Internet: <http://www.state.nj.us/dep/njgs/index.html>

## Appendix I: State Geological Surveys (cont.)

### NEW MEXICO

New Mexico Bureau of Mines & Mineral Resources  
Campus Station  
Socorro, NM 87801

Phone: 505 835-5420  
Fax: 505 835-6333  
e-mail: [bureau@gis.nmt.edu](mailto:bureau@gis.nmt.edu)  
Internet: <http://geoinfo.nmt.edu>

### NEW YORK

New York State Geological Survey  
New York State Museum  
3140 Cultural Education Center  
Empire State Plaza  
Albany, NY 12230

Phone: 518 474-5816  
Fax: 518 473-8496  
e-mail: [rfakundi@museum.nysed.gov](mailto:rfakundi@museum.nysed.gov)

### NORTH CAROLINA

North Carolina Geological Survey  
Box 27687  
Raleigh, NC 27611-7687

Phone: 919 733-3833  
Fax: 919 733-4407

### NORTH DAKOTA

North Dakota Geological Survey  
600 East Boulevard  
Bismark, ND 58505-0840

Phone: 701 328-9700  
Fax: 701 328-9898

### OHIO

Ohio Division of Geological Survey  
Department of Natural Resources  
4383 Fountain Square Drive  
Columbus, OH 43224-1362

Phone: 614 265-6576  
Fax: 614 447-1918

### OKLAHOMA

Oklahoma Geological Survey  
Energy Center, Room N-131  
100 E. Boyd  
Norman, OK 73019-0628

Phone: 405 325-3031  
Fax: 405 325-7069  
e-mail: [cjmankin@uoknor.edu](mailto:cjmankin@uoknor.edu)  
Internet: <http://www.uoknor.edu/special/ogs-pttc>

### OREGON

Oregon Department of Geology & Mineral Industries  
Suite 965  
800 N.E. Oregon Street #28  
Portland, OR 97232-2162

Phone: 503 731-4100  
Fax: 503 731-4066  
Internet: <http://sarvis.dogami.state.or.us>

### PENNSYLVANIA

Pennsylvania Bureau of Topographic & Geologic Survey  
P.O. Box 8453  
Harrisburg, PA 17105-8453

Phone: 717 787-2169  
Fax: 717 783-7267



## Appendix I: State Geological Surveys (cont.)

### PUERTO RICO

Puerto Rico Geological Survey Division  
Department of Natural & Environmental  
Resources  
Box 5887  
Puerta de Tierra Station  
San Juan, PR 00906

Phone: 809 722-2526  
Fax: 809 724-0365

### RHODE ISLAND

Rhode Island State Geologist  
Department of Geology  
University of Rhode Island  
Kingston, RI 02881

Phone: 401 874-2265  
Fax: 401 874-2190  
e-mail: JACAIN@uriacc.uri.edu  
Internet: <http://www.uri.edu/artsci/gel/rigeolst.htm>

### SOUTH CAROLINA

South Carolina Geological Survey  
5 Geology Road  
Columbia, SC 29210-4089

Phone: 803 896-7708  
Fax: 803 896-7695

### SOUTH DAKOTA

South Dakota Geological Survey  
University of South Dakota  
414 East Clark Street  
Vermillion, SD 57069-2390

Phone: 605 677-5227  
Fax: 605 677-5895

### TENNESSEE

Tennessee Division of Geology  
L&C Tower, 13th Floor  
401 Church Street  
Nashville, TN 37243

Phone: 615 532-1500

### TEXAS

Texas Bureau of Economic Geology  
The University of Texas  
Box X, University Station  
Austin, TX 78713-8924

Phone: 512 471-1534  
Fax: 512 471-0140  
e-mail: [tyler@begv.utexas.edu](mailto:tyler@begv.utexas.edu)  
Internet: <http://www.utexas.edu/depts/beg/>

### UTAH

Utah Geological Survey  
Box 146100  
Salt Lake City, UT 84114-6100

Phone: 801 537-3300  
Fax: 801 537-3400  
e-mail: [lallison@email.state.ut.us](mailto:lallison@email.state.ut.us)  
Internet: <http://utstdpwww.state.ut.us/~ugs>

### VERMONT

Vermont Geological Survey  
Vermont Agency of Natural Resources  
Center Building  
103 S. Main Street  
Waterbury, VT 05671-0301

Phone: 802 241-3499  
Fax: 802 244-1102  
e-mail: [larryb@anrimsgis.anr.state.vt.us](mailto:larryb@anrimsgis.anr.state.vt.us)

## Appendix I: State Geological Surveys (cont.)

### **VIRGINIA**

Virginia Division of Mineral Resources  
Box 3667  
Charlottesville, VA 22903  
Phone: 804 963-2308  
Fax: 804 293-2239

### **WASHINGTON**

Washington Department of Natural  
Resources  
Division of Geology & Earth Resources  
P.O. Box 47007  
Olympia, WA 98504-7007  
Phone: 360 902-1450  
Fax: 360 902-1785  
e-mail: [cjmanson@u.washington.edu](mailto:cjmanson@u.washington.edu)

### **WEST VIRGINIA**

West Virginia Geological & Economic  
Survey  
Mont Chateau Research Center  
Box 879  
Morgantown, WV 26507-0879  
Phone: 304 594-2331  
Fax: 304 594-2575  
e-mail: [info@geosrv.wvnet.edu](mailto:info@geosrv.wvnet.edu)

### **WISCONSIN**

Wisconsin Geological & Natural History  
Survey  
3817 Mineral Point Road  
Madison, WI 53705-5100  
Phone: 608 262-1705  
Fax: 608 262-8086

### **WYOMING**

Wyoming State Geological Survey  
Box 3008  
University Station  
Laramie, WY 82071  
Phone: 307 766-2286  
Fax: 307 766-2605  
e-mail: [wsgs@wsgs.uwyo.edu](mailto:wsgs@wsgs.uwyo.edu)  
Internet: [http://www\\_wwrc.uwyo.edu/wrds/wsgs/wsgs.html](http://www_wwrc.uwyo.edu/wrds/wsgs/wsgs.html)

## Appendix II: U.S. Army Corps of Engineers District Contact Information



### HQ, DIRECTORATE OF CIVIL WORKS

U.S. Army Corps of Engineers  
Department of the Army  
108 Army Pentagon  
Washington, DC 20310-0108  
Phone: 703 695-1370

### New Orleans District

U.S. Army Corps of Engineers  
New Orleans District (CELMN-OD-R)  
P.O. Box 60267  
New Orleans, LA 70160-0267  
Phone: 504 862-2255

### LOWER MISSISSIPPI VALLEY DIVISION

U.S. Army Corps of Engineers  
Lower MS Valley Division (CELMV-CO-R)  
P.O. Box 80  
Vicksburg, MS 39180-0080  
Phone: 601 634-5821

### St. Louis District

U.S. Army Corps of Engineers  
St. Louis District (CELMS-OD-R)  
1222 Spruce Street  
St. Louis, MO 63103-2833  
Phone: 314 331-8575

### Memphis District

U.S. Army Corps of Engineers  
Memphis District (CELMM-CO-R)  
B-202 Clifford Davis Federal Building  
Memphis, TN 38103-1894  
Phone: 901 544-3471

### Vicksburg District

U.S. Army Corps of Engineers  
Vicksburg District (CELMK-OD-F)  
2101 North Frontage Road  
Vicksburg, MS 39180-5191  
Phone: 601 631-5376

## Appendix II: U.S. Army Corps of Engineers District Contact Information (cont.)

### MISSOURI RIVER DIVISION

U.S. Army Corps of Engineers  
Missouri River Division (CEMRD-CO-O)  
12565 West Center Road  
Omaha, NE 68144  
Phone: 402 697-2533

### Kansas City District

U.S. Army Corps of Engineers  
Kansas City District (CEMRK-OD-R)  
700 Federal Building  
Kansas City, MO 64106-2896  
Phone: 816 426-3645

### Omaha District

U.S. Army Corps of Engineers  
Omaha District (CEMRO-OP-N)  
215 North 17th Street  
Omaha, NE 68102-4978  
Phone: 402 221-4133

### NEW ENGLAND DIVISION

U.S. Army Corps of Engineers  
New England Division (CNED-OD-P)  
424 Trapelo Road  
Waltham, MA 02254-9149  
Phone: 617 647-8057

### NORTH ATLANTIC DIVISION

U.S. Army Corps of Engineers  
North Atlantic Division (CENAD-CO-OP)  
90 Church Street  
New York, NY 10007-9998  
Phone: 212 264-7535

### Baltimore District

U.S. Army Corps of Engineers  
Baltimore District (CENAB-OP-PN)  
P.O. Box 1715  
Baltimore, MD 31203-1715  
Phone: 410 962-3670

### New York District

U.S. Army Corps of Engineers  
New York District (CENAN-PL-E)  
26 Federal Plaza  
New York, NY 10278-0090  
Phone: 212 264-3996

### Norfolk District

U.S. Army Corps of Engineers  
Norfolk District (CENAO-OP-N)  
803 Front Street  
Phone: 804 441-7068

### Philadelphia District

U.S. Army Corps of Engineers  
Philadelphia District (CENAP-OP-N)  
Wanamaker Building  
100 Penn Square East  
Philadelphia, PA 19107-3390  
Phone: 215 656-6725

### NORTH CENTRAL DIVISION

U.S. Army Corps of Engineers  
North Central Division (CENCD-CO-MO)  
111 North Canal Street, 12th Floor  
Chicago, IL 60606-7206  
Phone: 312 353-7762

## Appendix II: U.S. Army Corps of Engineers District Contact Information (cont.)

### **Buffalo District**

U.S. Army Corps of Engineers  
Buffalo District (CENCM-CO-R)  
1776 Niagara Street  
Buffalo, NY 14207-3199  
Phone: 716 879-4313

### **Chicago District**

U.S. Army Corps of Engineers  
Chicago District (CENCC-CO)  
111 North Canal Street, Sixth Floor  
Chicago, IL 60606-7206  
Phone: 312 886-3555

### **Detroit District**

U.S. Army Corps of Engineers  
Detroit District (CENCE-CO-OR)  
P.O. Box 1027  
Detroit, MI 48231-1027  
Phone: 313 226-2432

### **Rock Island District**

U.S. Army Corps of Engineers  
Rock Island District (CENCR-OD-R)  
P.O. Box 2004  
Clock Tower Building  
Rock Island, IL 61204-2004  
Phone: 309 794-5370

### **St. Paul District**

U.S. Army Corps of Engineers  
St. Paul District (CENCS-SO-PO)  
1421 USPO & Custom House  
190 Fifth Street East  
St. Paul, MN 55101-1638  
Phone: 612 290-5376

### **NORTH PACIFIC DIVISION**

U.S. Army Corps of Engineers  
North Pacific Division (CENPD-CO-R)  
P.O. Box 2870  
Portland, OR 97208-2870  
Phone: 503 326-3780

### **Alaska District**

U.S. Army Corps of Engineers  
Alaska District (CENPA-CO-NF)  
P.O. Box 898  
Anchorage, AK 99506-0898  
Phone: 907 753-2712

### **Portland District**

U.S. Army Corps of Engineers  
Portland District (CENPP-OP-PN)  
P.O. Box 2946  
Portland, OR 97208-2946  
Phone: 503 326-7146

### **Seattle District**

U.S. Army Corps of Engineers  
Seattle District (CENPS-OP-PO)  
P.O. Box 3755  
Seattle, WA 98124-2255  
Phone: 206 764-6695

### **Walla Walla District**

U.S. Army Corps of Engineers  
Walla Walla District (CENPW-OP-RM)  
City-County Airport  
Walla Walla, WA 99362-9265  
Phone: 509 522-6720

## Appendix II: U.S. Army Corps of Engineers District Contact Information (cont.)

### **OHIO RIVER DIVISION**

U.S. Army Corps of Engineers  
Ohio River Division (CEORD-DO-OR)  
P.O. Box 1159  
Cincinnati, OH 45201-1159  
Phone: 513 529-5487

### **Huntington District**

U.S. Army Corps of Engineers  
Huntington District (CEORH-OR-F)  
502 Eighth Street  
Huntington, WV 25701-2070  
Phone: 304 529-5487

### **Louisville District**

U.S. Army Corps of Engineers  
Louisville District (CEORH-OR-F)  
P.O. Box 59  
Louisville, KY 40201-0059  
Phone: 502 582-6461

### **Nashville District**

U.S. Army Corps of Engineers  
Nashville District (CEORN-OR-R)  
P.O. Box 1070  
Nashville, TN 37202-1070  
Phone: 615 736-5181

### **Pittsburgh District**

U.S. Army Corps of Engineers  
Pittsburgh District (CEORP-OR-R)  
1000 Liberty Avenue  
Pittsburgh, PA 15222-4186  
Phone: 412 644-6872

### **PACIFIC OCEAN DIVISION**

U.S. Army Corps of Engineers  
Pacific Ocean Division (CEPOD-CO-O)  
Building 230  
Fort Shafter, HI 96858-5440  
Phone: 808 438-9258

### **SOUTH ATLANTIC DIVISION**

U.S. Army Corps of Engineers  
South Atlantic Division (CESAD-CO-R)  
77 Forsythe Street, SW., Room 313  
Atlanta, GA 30335-6801  
Phone: 404 331-2778

### **Charleston District**

U.S. Army Corps of Engineers  
Charleston District (CESAC-CO-M)  
P.O. Box 919  
Charleston, SC 29402-0919  
Phone: 803 727-4604

### **Jacksonville District**

U.S. Army Corps of Engineers  
Jacksonville District (CESAJ-CO-OR)  
P.O. Box 4970  
400 West Bay Street  
Jacksonville, FL 32232-0019  
Phone: 904 232-2907

### **Mobile District**

U.S. Army Corps of Engineers  
Mobile District (CESAM-OP-R)  
109 St. Joseph Street  
P.O. Box 2288  
Mobile, AL 36628-0001  
Phone: 205 690-2658

## Appendix II: U.S. Army Corps of Engineers District Contact Information (cont.)

### **Savannah District**

U.S. Army Corps of Engineers  
Savannah District (CESAS-OP-R)  
P.O. Box 889  
Savannah, GA 31402-0889  
Phone: 912 652-5347

### **Wilmington District**

U.S. Army Corps of Engineers  
Wilmington District (CESAW-CO-R)  
P.O. Box 1890  
Wilmington, NC 28402-1890  
Phone: 919 251-4630

### **SOUTH PACIFIC DIVISION**

U.S. Army Corps of Engineers  
South Pacific Division (CESPD-CO-O)  
630 Sansome Street, Room 1216  
San Francisco, CA 94111-2206  
Phone: 215 705-1443

### **Los Angeles District**

U.S. Army Corps of Engineers  
Los Angeles District (CESPL-CO-R)  
P.O. Box 2711  
Los Angeles, CA 90053-2325  
Phone: 213 894-5606

### **Sacramento District**

U.S. Army Corps of Engineers  
Sacramento District (CESPK-CO-R)  
1325 J Street  
Sacramento, CA 95814-2922  
Phone: 916 894-5606

### **SOUTHWESTERN DIVISION**

U.S. Army Corps of Engineers  
Southwestern Division (CESWD-CO-R)  
1114 Commerce Street  
Dallas, TX 75242-0216  
Phone: 214 767-2436

### **Albuquerque District**

U.S. Army Corps of Engineers  
Albuquerque District (CESWA-CO-R)  
4101 Jefferson Plaza NE.  
Albuquerque, NM 87109-3435  
Phone: 505 342-3282

### **Fort Worth District**

U.S. Army Corps of Engineers  
Fort Worth District (CESWF-OD-M)  
P.O. Box 17300  
Fort Worth, TX 76102-0300  
Phone: 817 334-2681

### **Galveston District**

U.S. Army Corps of Engineers  
Galveston District (CESWG-CO-MO)  
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### **Little Rock District**

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## Appendix II: U.S. Army Corps of Engineers District Contact Information (cont.)

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## Appendix III: State Wellhead Protection Contact Information

### REGION I

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### REGION II

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#### New York Wellhead Protection

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## Appendix III: State Wellhead Protection Contact Information (cont.)

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### **US Virgin Islands Wellhead Protection**

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### **REGION III**

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### **REGION IV**

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## Appendix III: State Wellhead Protection Contact Information (cont.)

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### **South Carolina Wellhead Protection**

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## Appendix III: State Wellhead Protection Contact Information (cont.)

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## Appendix III: State Wellhead Protection Contact Information (cont.)

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### **REGION VII**

#### **Iowa Wellhead Protection**

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### **REGION VII**

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## REGION IX

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### Hawaii Wellhead Protection

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## Appendix III: State Wellhead Protection Contact Information (cont.)

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### **Northern Mariana Islands Wellhead Protection**

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### **REGION X**

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### **Idaho Wellhead Protection**

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### **Oregon Wellhead Protection**

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### **Washington Wellhead Protection**

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## Appendix IV: State Buffer Zone Considerations

The universe of industrial nonhazardous solid wastes and unit types is broad and diverse. States have established various approaches to address location considerations of the variety of wastes and units in their states. The tables below summarize the range of buffer zone restrictions and most common buffer zone values specified for each unit type by some states to address their local concerns. The numbers in the tables are not meant to advocate the adoption of a buffer zone of any particular distance; rather, they

serve only as examples of restrictions states have individually developed.

- **Surface Impoundments.** Restrictions with respect to buffer zones vary among states. In addition, states allow exemptions or variances to these buffer zone restrictions on a case-by-case basis. Table 1 presents the range of values and the most common value used by states for each buffer zone category.

Table 1  
State Buffer Zone Restrictions for Surface Impoundments

Buffer Zone Category	Range of Values - minimum distance (number of states with restrictions)		Most Common Value (number of states with restrictions)	
Groundwater Table	1 to 15 feet	(4)	5 feet	(2)
Property Boundaries	100 to 200 feet	(4)	100 feet	(2)
Drinking Water Wells	1,200 to 1,320 feet	(2)	1,200 feet (1) 1,320 feet (1)	
Public Water Supply	500 to 1,320 feet	(4)	1,320 feet	(1)
Surface Water Body	100 to 1,320 feet	(4)	100 feet	(2)
Houses or Buildings	300 to 1,320 feet	(4)	1,320 feet	(2)
Roads	1,000 feet	(1)	1,000 feet	(1)



## Appendix IV: State Buffer Zone Considerations (cont.)

- **Landfills.** Table 2 presents the range of values and the most common state buffer zone restrictions for landfills.

Table 2  
State Buffer Zone Restrictions for Landfills

Buffer Zone Category	Range of Values - minimum distance (number of states with restrictions)	Most Common Value (number of states with restrictions)
Groundwater Table	1 to 15 feet (12)	5 feet (4)
Property Boundaries	20 to 600 feet (14)	100 feet (7)
Drinking Water Wells	500 to 1,320 feet (9)	500 feet (2) 600 feet (2) 1,200 feet (2)
Public Water Supply	400 to 5,280 feet (13)	1,200 feet (3)
Surface Water Body	100 to 2,000 feet (20)	100 feet (5) 1,000 feet (5)
Houses or Buildings	200 to 1,320 feet (14)	500 feet (7)
Roads	50 to 1,000 feet (8)	1,000 feet (5)
Park Land	1,000 to 5,280 feet (7)	1,000 feet (4)
Fault Areas	200 feet (2)	200 feet (2)

- **Waste Piles.** Table 3 presents the state buffer zone restrictions for wastepiles. Of the four states with buffer zone restrictions, only two states specified minimum distances.

Table 3  
State Buffer Zone Restrictions for Waste Piles

Buffer Zone Category	Range of Values - minimum distance (number of states with restrictions)	Most Common Value (number of states with restrictions)
Groundwater Table	4 feet* (1)	4 feet (1)
Property Boundaries	50 feet (1)	50 feet (1)
Surface Water Body	50 feet (1)	50 feet (1)
Houses or Buildings or Recreational Area	200 feet (1)	200 feet (1)
Historic Archeological Site or Critical Habitat	Minimum distance not specified (1)	Minimum distance not specified (1)

\*If no liner or storage pad is used, then this state requires four feet between the waste and the seasonal high water table.

## Appendix IV: State Buffer Zone Considerations (cont.)

- **Land Application.**<sup>1</sup> Table 4 presents the range of values and the most common state buffer zone restrictions for land application.

Table 4  
State Buffer Zone Restrictions for Land Application

Buffer Zone Category	Range of Values - minimum distance (number of states with restrictions)	Most Common Value (number of states with restrictions)
Groundwater Table	4 to 5 feet (3)	4 feet (1) 5 feet (1)
Property Boundaries	50 to 200 feet (4)	50 feet (2)
Drinking Water Wells	200 to 500 feet (2)	200 feet (1)
Public Water Supply	300 to 5,280 feet (3)	300 feet (1) 1,000 feet (1) 5,280 feet (1)
Surface Water Body	100 to 1,000 feet (5)	100 feet (2)
Houses or Buildings	200 to 3,000 feet (6)	300 feet (2)
Park Land	2,640 feet (1)	2,640 feet (1)
Fault Areas	200 feet (1)	200 feet (1)
Max. Depth of Treatment	5 feet (1)	5 feet (1)
Pipelines	25 feet (1)	25 feet (1)
Critical Habitat	No minimum distance set (2)	No minimum distance set (2)
Soil Conditions	Not on frozen, ice or snow covered, or water saturated soils (1)	Not on frozen, ice or snow covered, or water saturated soils (2)

<sup>1</sup>In the review of state regulations performed to develop Table 4, it was not possible to distinguish between units used for treatment and units where wastes are added as a soil amendment. We recommend that you consult applicable state agencies to determine which buffer zone restrictions are relevant to your land application unit.

## Appendix IV: State Buffer Zone Considerations (cont.)

Based on the review of state requirements, Table 5 presents the most common buffer zones restrictions across all four unit types.

Table 5  
Common Buffer Zone Restrictions Across All Four Unit Types

Buffer Zone Category (total number of states for all unit types)		Most Common Values (number of states with restrictions)	
Groundwater Table	(20)	4 feet	(4)
		5 feet	(4)
Property Boundaries	(23)	50 feet	(8)
		100 feet	(5)
Drinking Water Wells	(13)	500 feet	(3)
Public Water Supply	(20)	1,000 feet	(3)
		1,200 feet	(3)
Surface Water Body	(30)	100 feet	(5)
		200 feet	(5)
		1,000 feet	(5)
Houses or Buildings	(25)	500 feet	(9)